Big defense job for little companies

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BUSINESS WEEK

A McGRAW-HILL PUBLICATION FIFTY CENTS FEB. 15, 1958

Charles H. Brower, BBDO's new president, sees no reason an advertising agency can't be businesslike—diversify, look ahead, "build solid"
(Marketing)

E B POWER
UNIVERSITY MICROFILMS
313 N 1ST ST
ANN ARBOR MICH

How to stay in love with a fender-bender!

NOW there's a better way to cope with dented fenders than blowing your top, junking that new car, or wondering if you married the right girl.

Thanks to a new automotive body "solder" using an Epon® resin, repairs can now be made more quickly than ever before—and at a fraction of the usual cost. Tough as the steel to which it clings and as easy to apply as putty, this Epon resin-based "solder" will take and hold any desired shape, mend dents and nicks, fill holes, seal metal to metal with an unbreakable grip.

* * *

Epon resins, used in a variety of applications in structural plastics, protective coatings, and adhesives, are another Shell Chemical contribution to industry.

Shell Chemical Corporation

Chemical Partner of Industry and Agriculture

NEW YORK

SHELL

GENERAL BUSINESS

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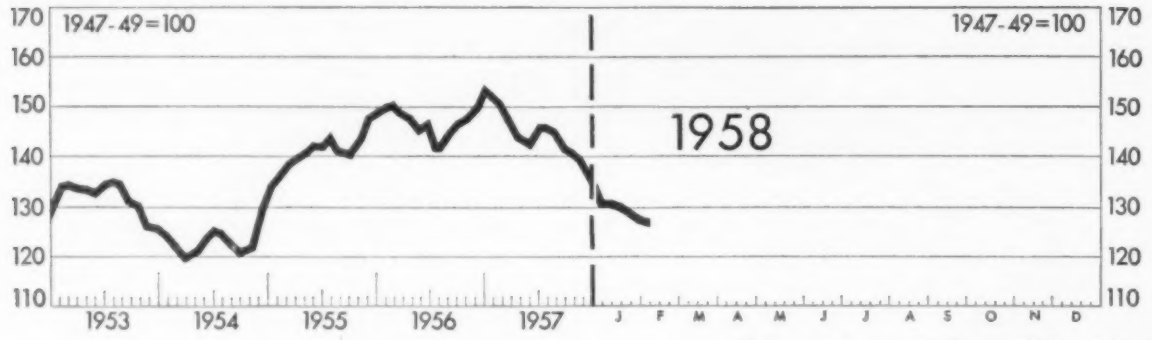
NUMBER 1485

FIGURES OF THE WEEK



	1946 Average	Year Ago	Month Ago	Week Ago	§ Latest Week
BUSINESS WEEK INDEX (chart)	**91.6**	**151.1**	**131.3**	**†128.3**	***127.6**
PRODUCTION					
Steel ingot (thous. of tons)	1,281	2,501	1,538	†1,457	**1,449**
Automobiles and trucks	62,880	179,776	146,025	†130,961	**132,880**
Engineering const. awards (Eng. News-Rec. 4-wk daily av. in thous.)	$17,083	$57,045	$41,999	$47,979	**$47,510**
Electric power (millions of kilowatt-hours)	4,238	12,019	12,506	12,238	**12,289**
Crude oil and condensate (daily av., thous. of bbls.)	4,751	7,461	6,850	6,842	**6,858**
Bituminous coal (daily av., thous. of tons)	1,745	1,463	1,405	†1,381	**1,353**
Paperboard (tons)	167,269	282,539	275,279	244,049	**251,516**
TRADE					
Carloadings: miscellaneous and l.c.l. (daily av., thous. of cars)	82	67	55	53	**54**
Carloadings: all others (daily av., thous. of cars)	53	41	39	39	**38**
Department store sales index (1947-49 = 100, not seasonally adjusted)	90	94	95	93	**92**
Business failures (Dun & Bradstreet, number)	22	287	324	326	**342**
PRICES					
Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100)	311.9	420.0	390.4	392.8	**394.0**
Industrial raw materials, daily index (BLS, 1947-49 = 100)	††73.2	95.3	83.3	83.1	**83.7**
Foodstuffs, daily index (BLS, 1947-49 = 100)	††75.4	81.5	86.6	86.9	**88.2**
Print cloth (spot and nearby, yd.)	17.5¢	18.3¢	17.8¢	17.6¢	**17.6¢**
Finished steel, index (BLS, 1947-49 = 100)	††76.4	171.9	181.7	181.7	**181.7**
Scrap steel composite (Iron Age, ton)	$20.27	$53.33	$33.17	$36.67	**$37.33**
Copper (electrolytic, delivered price, E & MJ, lb.)	14.045¢	33.869¢	25.770¢	24.915¢	**24.888¢**
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$1.97	$2.32	$2.23	$2.19	**$2.17**
Cotton, daily price (middling, 1 in., 14 designated markets, lb.)	**30.56¢	33.79¢	34.88¢	34.70¢	**34.69¢**
Wool tops (Boston, lb.)	$1.51	$2.21	$1.85	$1.78	**$1.78**
FINANCE					
500 stocks composite, price index (S&P's, 1941-43 = 10)	17.08	42.99	40.65	42.01	**41.47**
Medium grade corporate bond yield (Baa issues, Moody's)	3.05%	4.47%	4.88%	4.70%	**4.70%**
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate)	¾-1%	3⅜%	3⅜%	3⅛%	**2¾%**
BANKING (Millions of Dollars)					
Demand deposits adjusted, reporting member banks	††45,820	56,874	56,356	56,134	**55,880**
Total loans and investments, reporting member banks	††71,916	85,069	87,744	86,187	**87,066**
Commercial and agricultural loans, reporting member banks	††9,299	30,162	31,651	30,638	**30,441**
U. S. gov't guaranteed obligations held, reporting member banks	††49,879	25,921	26,087	25,923	**26,290**
Total federal reserve credit outstanding	23,888	25,146	26,100	24,632	**24,397**

MONTHLY FIGURES OF THE WEEK		1946 Average	Year Ago	Month Ago	Latest Month
Employment (in millions)	**January**	55.2	62.6	64.4	**62.2**
Unemployment (in millions)	**January**	2.3	3.2	3.4	**4.5**
Average weekly earnings in manufacturing	**January**	$43.82	$82.41	$82.74	**$81.27**
Wholesale prices (U.S. Dept. of Labor BLS, 1947-49=100)	**January**	78.7	116.9	118.5	**118.7**
Housing starts (in thousands)	**January**	55.9	63.0	62.0	**69.0**
Exports (in millions)	**December**	$812	$2,007	$1,683	**$1,639**

* *Preliminary, week ended February 8, 1958.*
† *Revised.*
†† *Estimate.*
** *Ten designated markets, middling ⅞ in.*
§ *Date for 'Latest Week' on each series on request.*

THE PICTURES—Cover—Grant Compton; 34 (top) Lynn Pelham, (bot. lt.) Bob Bailey; 35—(top. lt.) Fraser Hale, (bot.) Bob East; 36—W.W.; 39—Grant Compton; 71—George Woodruff; 72, 73, 74—Grant Compton; 90—Ed Nano; 91 (top & bot. lt.) Ed Nano, (bot. rt.) Herb Kratovil; 97, 100—Grant Compton; 114, 115—Lee Thody; 129—W.W.; 133—Associated Photographers; 150—Olin Mathieson Chemical Corp.; 154—George Burns.

B.F.Goodrich report:

Rocks headed for tomorrow's turnpike

B. F. Goodrich improvements in rubber brought extra savings

Problem: Those big rocks are on their way to be crushed into little ones. With millions of tons needed for highway construction, rocks must be handled at low cost. The owners of this crushing plant knew a conveyor belt would be the ideal way—cheaper, faster than the old skip-car method. But the belt would take a terrific beating. That rock is not only heavy, it has sharp, cutting edges, too.

What was done: The B.F.Goodrich distributor recommended a cord conveyor belt for this job. In this B.F. Goodrich belt, hundreds of cords, running lengthwise, buried in the rubber, add so much strength that a single belt can travel distances and carry loads once considered impossible. It stands crashing blows that would gouge or break many ordinary belts.

Savings: After 9 years, and 14 million tons, the B.F.Goodrich belt pictured here is still going strong. Handling costs have gone way down.

Extra benefits: But good as this record is, chances are that it will soon be bettered because of the improvements B. F. Goodrich is constantly making in conveyor belting. In recent years, for example, the use of Nyfil fabrics has resulted in cord belts that last even longer, carry heavier loads, stand even more pounding.

Where to buy: Your B.F.Goodrich distributor has exact specifications for the B.F.Goodrich cord belt described here. And, as a factory-trained specialist in rubber products, he can answer your questions about *all* the rubber products B.F.Goodrich makes for industry. *B.F.Goodrich Industrial Products Co., Dept. M-277, Akron 18, Ohio.*

B.F.Goodrich

INDUSTRIAL PRODUCTS

THE CALCULATOR THAT PRINTS

7½ hours at $23.35 an hour.

Employee #17, the "extra" in the Tyrolean Hat, is paid on-the-dot, on-the-spot, thanks to the Calculator That Prints.

There's instantaneous proof of accuracy on every calculation with the "99" Calculator, whether you have to meet an "on location," office or plant payroll. From payroll computations to all your day-by-day figure work . . . no double check reruns are necessary. Multiplication and division are completely automatic – lightning-fast addition and subtraction with automatic Credit Balance.

Did you know that you can own a "99" Calculator for less than $6.50 a week? Call your local Remington Rand Office or write for folder C1096, Room 1204, 315 Fourth Avenue, New York 10.

Remington Rand
DIVISION OF SPERRY RAND CORPORATION

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READERS REPORT

Miniature Furnace

Dear Sir:

In your article on the Canadian Steel Picture in Canada [BW—Dec.28'57,p56], the information shown under an illustration of a modern day blast furnace at the Steel Company of Canada Limited, Hamilton, Ontario, plant indicates that the size is 28" in diameter. I am sure you must mean 28'. . . .

S. C. MORREALE
PURCHASING AGENT
W. H. COOPER CONSTRUCTION CO.
HAMILTON, ONT., CANADA

• We did mean 28'.

Pendulum-Type Train

Dear Sir:

In [BW—Dec.14'57,p74] your magazine commented on the pendulum type of train being tried by the French National Railways. . . .

Your researchers missed the fact that this type of train was successfully proven up in Los Angeles about 20 years ago by Preco Inc. of Los Angeles, originally called Pacific Railway Equipment Co. . . .

CORTLANDT T. HILL
LOS ANGELES, CALIF.

Big Blooper

Dear Sir:

Re: British Auto Schools in U. S. [BW—Dec.14'57,p61] regarding British Motor Corp.'s servicing school in this country. Big blooper on your part was the assigning of Hillman to the B.M.C. Actually, Hillman is part of the rival Rootes Group, one of the British "Big Five," also making Sunbeams, Humbers, Singers, and commercial vehicles.

Rootes, too, has servicing schools both on East and West coasts. . . .

PETER R. EASTON
PUBLICITY MANAGER
ROOTES MOTORS INC.
NEW YORK, N. Y.

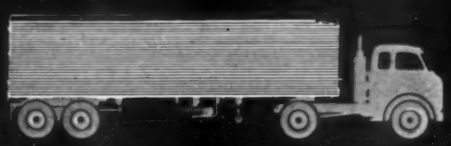
What's Your Source?

Dear Sir:

In Congress Reaches for New Power [BW—Jan.4'58,p19] you make the statement the world has been changed by: "the Russian demonstration that they are farther into the age of space than we are—by launching two successful satellites and by outstripping us in missile development."

What proof do you have that Russia is outstripping us in missile

From 1952 through 1957, Cummins Diesels have powered more new diesel trucks than all other makes combined...*



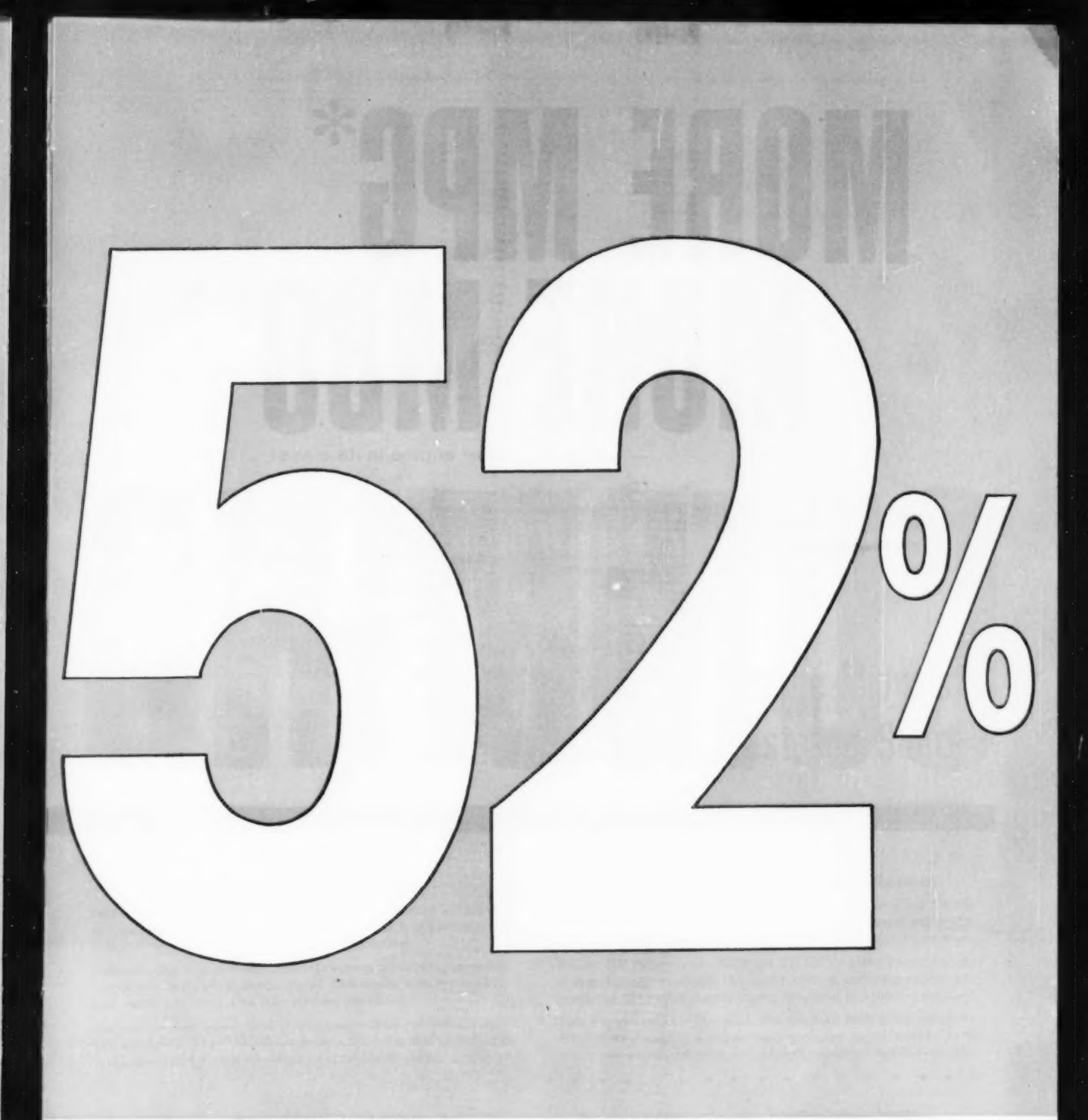
*Based on R. L. Polk Co. percentage breakdown figures from 1952 through October 1957. Also first 10 months 1957 show more than all others combined.

CUMMINS

Each year from 1952 on, Cummins Diesels have consistently led all other makes of diesels in popularity. Consistent with this leadership has also been the increase in sales of the medium and heavy class trucks. The two go hand in hand.

The trend is to diesel, and the top choice is Cummins. Every year thousands of truck operators pick Cummins for these reasons . . .

CUMMINS ENGINE COMPANY, INC., COLUMBUS, INDIANA



Easy to get. 16 truck manufacturers offer economical Cummins power in more than 225 over-the-highway models. **Easy on costs.** You get long engine life, more miles per gallon with low maintenance and repair costs. **Fast, expert service.** More than 300 Cummins outlets throughout United States and Canada are always near at hand. **Complete engine line.** 18 models, from 125 to 335 horsepower, are available for every highway application.

MORE PROFIT

Now, here's one more reason for Cummins leadership → → →

MORE MPG*
MORE MBO**

than any other engine in its class!

CUMMINS

ATTENTION MEDIUM-HEAVY TRUCKERS! Leading truck manufacturers are currently offering the 180 h.p. Cummins NH-180 in lightweight heavy-duty chassis for highway service. Whether you now operate *gasoline* or *diesel*, you're going to earn more profit with NH-180 in your favorite tractor!

CHECK THIS LIST: Autocar, models DC-74, DC-75; Brockway, model H257 and other H series; Diamond T, model 923; International (Fort Wayne), models ACF-195D, ACF-205D, AC-225D; International (Emeryville), models RD-410, DCO-405 series, RD-405 series; White, models 9000-TD, 4400-TD, 3400-TD. NH-180 also available in various diesel models of these manufacturers: Four Wheel Drive, Hendrickson, Kenworth, Peterbilt and White-Freightliner.

CUMMINS NH-180

Brake horsepower	180
Governed RPM	2100
Bore and stroke	4⅞" x 6"
No. of cylinders	6
Piston displacement	672
Net weight with standard accessories	2400

NH-180 for the Midwest, East, and South

***MORE MILES PER GALLON!**

Less Fuel Per Hour. The NH-180, when delivering maximum horsepower or maximum torque to the wheels, uses less fuel per brake horsepower hour than any other truck engine, diesel or gasoline!

Proven 4-valve Cylinder Heads. Better breathing provides higher power output with low exhaust temperatures. This results in better combustion, cooler operation—the most efficient use of fuel!

Foolproof PT Fuel System. Here's the one system that meters fuel simply and accurately. It has 125-250 fewer parts than other fuel systems and gives low-cost maintenance—high road availability—top economy!

Cummins Diesels

power more new trucks than all

other diesels combined!

****MORE MILES BETWEEN OVERHAULS!**

Long Engine Life. Since components of the NH-180 are less heavily loaded than higher horsepower NH models, you get longer engine life. Low exhaust temperatures are the key to this economy of operation.

Proven NH Performance. You'll get 350,000 or more low-cost miles *before a major overhaul!* This is the kind of performance that has made the NH engine the most specified diesel in American trucking!

New Engine Life After Overhaul. One overhaul doubles the life of the NH-180. Replaceable, wet-type liners and other easily installed parts assure new engine standards and efficient operating life after rebuilds.

For More NH-180 information, mail this coupon today!

Cummins Engine Company, Inc.
Columbus, Indiana

_____ Send me complete NH-180 specifications.

_____ Have a Cummins Representative call.

Name_____ Position_____

Company_____

Address_____ County_____ State_____

(Advertisement)

Pamela and the Press

"PAMELA AND HER MOTHER" PHOTOGRAPH BY HAL ADAMS

Actually Pamela created the urgency, although she hadn't yet been born. It was especially because of Pamela that Major Samuel Lee, soon to be discharged from the United States Army, was looking for a good house to buy. But he wasn't finding it easy. He wasn't even finding it possible.

Certainly, there were plenty of houses for sale. Billboards offered them all along the freeway to Orange County, where Major Lee wanted to buy a home and practice his profession of medicine. But they just weren't available to Sammy Lee.

Not that Major Lee wasn't a man of character and substance. He had grown up in nearby Los Angeles, became a physician, served with distinction in his country's army.

The problem was something else entirely. The real estate men were polite but firm. Nothing personal, you understand, but business was business. They couldn't—or wouldn't—sell a home to a person of Korean ancestry.

Major Lee tried moderate-priced homes; he tried the more expensive "custom-styled" homes. The answer was the same. Nothing personal, though.

But it *felt* personal to Sammy Lee on the plane all the way to Washington, where he and other noted guests were to dine with the President and plan a campaign against juvenile delinquency.

Sammy Lee was one of the President's guests because he had twice won Olympic diving championships for the U.S., because he had just completed a tour of Southeast Asia nations as the President's Sports Ambassador and would soon become one of the members of a team of Olympic champions to attend the Australian Olympic Games as the President's personal representatives.

When he returned to his base at Fort Carson, Colorado, he spoke to his friends of the irony of his position, and his letters to his many friends abroad reflected his bitter disappointment.

A foreign correspondent in Tokyo—a man who had known Sammy—heard the story and telephoned one night. Over six thousand miles of telephone wires and undersea cables, the newsman covered a story somewhat off his beat.

After a long talk with Sammy, the correspondent telephoned an editor of the *San Francisco Chronicle* who the next day sent a reporter to Santa Ana. The facts were checked, the story run. West Coast metropolitan papers carried the story of Sammy's fruitless search for a home. Television and radio newsrooms picked it up. The *Santa Ana Register*, biggest hometown newspaper for Orange County, went to work editorially. So did the *Long Beach Press-Telegram*, which isn't quite in Orange County but is widely circulated there.

The press, once described by Thomas Jefferson as more vital than government itself, was on the job.

The *Press-Telegram* wired funds to Sammy in Fort Carson to come again to Orange County to meet the real people, the real spokesmen. Sammy came.

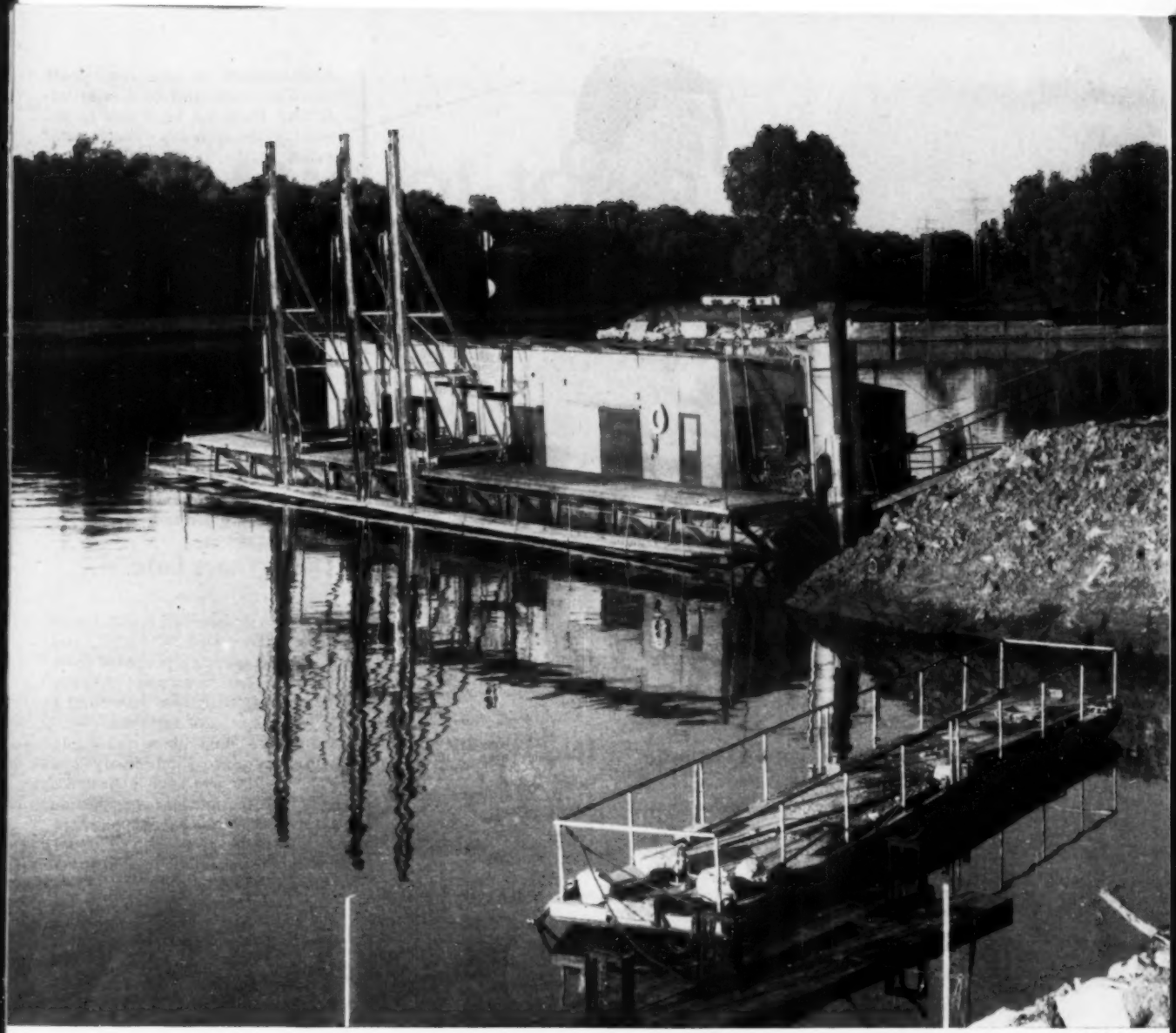
He met the Mayor of Anaheim. He met the President of the West Orange County Board of Realtors. Together they took Sammy and his family—which now included young Pamela—through the area until they found the home and the physician's office that they wanted.

When the Lees moved in, Orange County threw a big, official party, with all sorts of heart-warming overtones. Banners said "Welcome Sammy Lee!" Newspaper and television cameras clicked and ground. Speeches were made by the Mayor of Anaheim, the President of the County Medical Association, the State Senator, the Congressman and the United States Senator.

Best of all, the neighbors were there. From blocks around they came—and Sammy's disappointment and Sammy's asking were answered, in the best American tradition.

What happened to Sammy Lee in his quest for a home provides another example of the endless ways in which American individuals and institutions are constantly renewing their faith in the principles of Jefferson, Madison, Lincoln and other great Americans in this, the 20th Century.

The American Traditions Project of the Fund for the Republic has compiled hundreds of true stories of contemporary Americans whose actions have advanced freedom and justice. Some of these stories have been published in a booklet, "The American Tradition in 1957." Free copies are available. Write to the American Traditions Project, Box 48462-BWE Los Angeles 48, Calif.



Drill barge *Wasp*, with three Gardner-Denver rock drills on 26-foot towers, at work on Cal-Sag Canal.

Booming Days on the Cal-Sag Bottleneck

Vital link in connecting the Great Lakes-St. Lawrence System with the Illinois-Mississippi Waterway, the old Cal-Sag Canal, just south of Chicago, has been echoing to the boom of big-time blasting.

The canal, which might have been a bottleneck, is being widened from 60 to 225 feet. The widening will extend 16 miles. It will cost about $30 million.

More than two million yards of overburden and more than a million cubic yards of ledge rock are being removed in the first three-mile section of the widening project. These huge quantities alone would make a difficult job. For the contractor, Maryland Construction Co., there's an additional difficulty—making a profit on the job that was bid 46% below estimate.

In such "beat-the-clock" circumstances, only the most efficient, most dependable equipment will do. This explains the wise choice of Gardner-Denver Model 123 rock drills to speed rock removal. Gardner-Denver Company, Quincy, Illinois.

ENGINEERING FORESIGHT—PROVED ON THE JOB
IN GENERAL INDUSTRY, CONSTRUCTION, PETROLEUM AND MINING

GARDNER - DENVER

Next trip he'll travel by Pullman! A man wants to be fresh and alert when he makes important calls. That's why he should save and renew his energy at every opportunity. Even while he's *traveling* he can do this—if he gets a good night's sleep on a Pullman!

Travel by Pullman is peace of mind . . . freedom from tensions and fatigue . . . a refreshing change of pace. And, most important of all, it's energy-building *sleep* the whole night through, in a king-size bed!

Pullman travel is the comfortable, *carefree* way to go almost anywhere. No weather worries or uncertain schedules . . . no highway hazards or traffic problems. Make "Travel by Pullman" a part of your energy conservation program. It's a restful, healthful travel habit that pays dividends—to you, your family, and your firm! Try it on your very next trip.

ARRIVE RESTED AND REFRESHED . . . BY

Pullman

Have a rent-a-car waiting if you wish!

development? Is your only proof based on statements of Russian officials? Have we been able to depend on the accuracy of such statements in the past? Are you and many other U. S. publications, radio and television stations putting out exactly the story that the Russians want put out?

PAUL W. MILAN
DEAN, UNIVERSITY OF ARKANSAS
COLLEGE OF BUSINESS
ADMINISTRATION
FAYETTEVILLE, ARK.

• BUSINESS WEEK puts out the story that Russia is outstripping the U. S. in missile development because it is true—if you believe what our top military experts, government officials, and scientists say. If you have any better information, we would be delighted to hear about it.

Three Years Late

Dear Sir:

In your article Toll Roads Bump Along [BW—Dec.28'57,p50], you make reference to a proposed Iowa toll road and comment "Already there is talk that Iowa may build a 150-mile east-west turnpike."

You are about three years late with your assumption. In 1952 a second study said such a turnpike would be feasible if favorable interest rates could be obtained and on that basis, over vigorous opposition, the legislature established a Toll Road Commission. When Congress passed the 1956 Federal Aid Highway Act with its 90-10 provisions for the Interstate System, the Iowa legislature quickly repealed the Toll Road Law and disbanded the commission.

Interstate Highway 80 across Iowa east-west will be in the general location of the proposed toll road. It will be a superhighway and construction on it has started.

GERALD BOGAN
EXECUTIVE SECRETARY
IOWA GOOD ROADS ASSN., INC.
DES MOINES, IOWA

Brussels Fair

Dear Sir:

Your interesting article concerning the Brussels World's Fair of 1958 . . . Reds Aim to Steal Brussels Show [BW—Jan.11'58,p96], has just reached me. I want to compliment you on the thorough job. . . . However, I am writing you . . . in amplification of certain points in the article which may create misunderstandings.

The decision that the Brussels Exposition would be a World's Fair

Out-of-town telephone calls get there first, get things done ...profitably

No one ever buried an out-of-town telephone call in an "in basket."

That's one big reason why wise management encourages the use of out-of-town calls. They get there first, and they get things done—profitably. They save that most valuable raw material of all to any business—time.

For example: they reach promising prospects faster, speed up slow deliveries, keep you in quick, personal touch with your own sales force, branch offices, and other company units.

In every operation of business—in sales, purchasing, collections, production, shipping —out-of-town calls furnish fast, personal, *profitable* communications.

Why not check to see if your people are making full, regular use of out-of-town telephone calls to increase profit?

More and more companies are discovering that *it pays.*

YOU SAVE MONEY
WHEN YOU CALL STATION-TO-STATION
instead of Person-to-Person

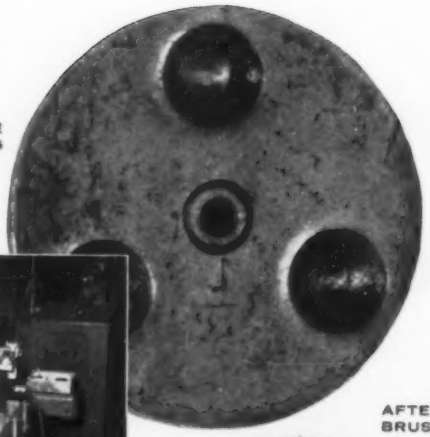
For example:	Day Rates (first 3 minutes) Person-to-Person	Station-to-Station	Each Added Minute (applies to all calls)
Cleveland to Pittsburgh	85¢	60¢	15¢
Des Moines to Chicago	$1.40	$1.00	25¢
Washington, D.C., to Boston	$1.55	$1.10	30¢
Miami to St. Louis	$2.40	$1.70	45¢
San Francisco to New York	$3.50	$2.50	65¢

Add 10% Federal Excise Tax

BELL TELEPHONE SYSTEM

OSBORN®

BEFORE BRUSHING



AFTER BRUSHING

A manufacturer of computers and business machines improves the quality of precision components, greatly reduces costs using Osborn Brushamatic machines.

Low price on high finish

A few years ago, precision parts were finished in custom lots at considerable cost. Today, Osborn power brushing methods puts finer finishes on precision parts at mass-production rates.

The business machine component shown above is typical. Brushamatic® Machines put a high, mirror-like finish on all flat and depressed surfaces of this ball retainer in just 25 seconds—*finish 6 parts for the former cost of finishing 1.*

An **O**sborn **B**rushing **A**nalysis, made in your plant at no obligation, will show how *you* can use Brushamatic® methods to produce finer finishes at lower cost. Write THE OSBORN MANUFACTURING COMPANY, DEPT. A-113, 5401 HAMILTON AVENUE, CLEVELAND 14, OHIO.

Osborn Brushes

BRUSHING MACHINES • BRUSHING METHODS
INDUSTRIAL BRUSHES • FOUNDRY PRODUCTION MACHINERY

rather than a trade fair was made by the Belgian authorities . . . and not by the Department of State. Participating nations were asked specifically to present in their pavilions exhibits tied to the general theme of man's fruitful employment of leisure resulting from scientific and technological advances. . . .

Our first appropriation—for $4-million—was made in August, 1956, prior to the appointment of myself or . . . my staff. At that time, $15-million was estimated as the cost of U. S. participation. . . .

We are now applying for a supplemental budget, not as you state "only to strengthen our cultural program" but for the following purposes: to keep the U. S. Pavilion open 13 hours a day, seven days a week . . . to improve certain technical exhibits; to add additional exhibits to the International Science Section . . . for the Performing Arts program; and . . . for souvenir maps of the U. S. and guidebooks of the U. S. Pavilion to be distributed free or sold under cost. . . .

Our request for supplemental funds has not been made "belatedly" but originated at the time when our proposed budget was first curtailed. . . .

American business concerns, in their interest and support of our program since we first approached them, have not indicated to us that they felt that they were being "short changed." You are quite correct in stating that several firms have declined participation on the grounds that the specific products they wish to promote were not or are not included in our exhibit plans, but many other firms have gone ahead and underwritten elements of the exhibit which would give them prestige rather than sales. . . .

HOWARD S. CULLMAN
COMMISSIONER GENERAL
U. S. DEPT. OF STATE
BRUSSELS UNIVERSAL & INTERNATIONAL EXHIBITION, 1958
NEW YORK, N. Y.

Pearls of Wisdom

Dear Sir:

In reference to your article on pearls [BW—Dec.28'57,p72], pearls are never found in oysters. An inedible mussel, much larger than any oyster and of different form and color, produces the gem pearl.

WALTER BAKER
LOS ANGELES, CALIF.

• Reader Baker is only partly right. Gem pearls do not come from edible oysters but can come from some inedible oysters.

Girdler hydrogen plant helps convert ore into high octane gasoline

The first commercial plant to make gasoline from a raw material other than crude oil is the refinery of American Gilsonite Company at Gilsonite, Colorado. Here a solid hydrocarbon, Gilsonite* ore, is processed into high octane gasoline.

A Girdler hydrogen plant, shown at left, is a key part of the catalytic reforming. Its hydrogen, generated from propane and butane, is used to purify the gasoline produced.

Girdler has built much of America's hydrogen plant capacity installed during the past ten years . . . also many other types of process plants. Take advantage of Girdler's proven experience as engineer-constructors when you plan modernization or expansion of processing facilities.

* Gilsonite is a Registered Trademark.

This Girdler hydrogen plant is part of the catalytic reformer installation of American Gilsonite Co., built by H. K. Ferguson Co.

GIRDLER

CONSTRUCTION DIVISION

NATIONAL CYLINDER GAS COMPANY

Louisville 1, Kentucky

Sales Offices: New York, N. Y.; San Francisco, Calif.
Engineering Offices: Louisville, Ky.; Orlando, Florida

"Our IBM 705 was paying for itself in a few weeks—and we had just scratched the surface..."

—John S. Woodbridge, Comptroller, Pan American World Airways, Inc., in an exclusive interview

ACCOUNTING ENTERS THE JET AGE:

How can you find the best way of bringing the benefits of electronic data processing to your company? What does "electronics" require in the way of planning and personnel? What can a company expect in actual savings and benefits? You'll find the answers in the remarkable achievement of Pan American World Airways, the transportation industry's pioneer in electronic data processing. In this recorded discussion, John S. Woodbridge, Comptroller, and James McGuire, Assistant Comptroller—the men who spearheaded Pan Am's project—reveal the problems and practical solutions to a successful data processing program.

Q. Let's start at the beginning. Why did you turn to high-speed electronics?

A. Frankly, with our explosive increase in business, we had come so far and grown so fast that the saturation point for our existing accounting and record-keeping systems had been reached. At that point—it was early in 1954—we began exploring electronics seriously.

Q. Were there many problems at that stage?

A. Some, but we did know pretty well where we wanted to use electronics. And we actually had a good part of the analysis done before we started. We've had continuing cyclical reviews of our methods for many years now. When you've got those studies behind you, half your evaluation work for electronics is done.

Q. How did you go about finding a system best suited to your requirements?

A. We compared five different systems. *Expandability* was typical of the features we looked for. We felt the system we chose should be able to encompass further company growth with the simple addition of extra units. The IBM 705 was just such a system.

Q. Were there other factors—beyond features of the system itself—that affected your choice?

A. Yes, of course. Aside from satisfying ourselves that the equipment would meet our needs, we looked into such things as the educational and service programs of the manufacturer. How well could he train our people? How well-trained were his own people? We looked into the extent and nature of his systems experience and know-how. IBM scored highly in all these areas.

Q. After you chose the IBM 705, what was the next step?

A. Programming. You may be surprised to learn we did this job ourselves—with IBM's help, of course. We felt on safer ground training some of our own people than in hiring outside programmers who would first have to be taught our business. Experience has borne out the wisdom of this approach. But here's a key point: we took only our top people—our department heads—for the job. There were

McGuire: *"When you're comparing electronic systems, you've got to look at the manufacturer's know-how and service facilities, too."*

THE PAN AM STORY

about ten altogether. They went to IBM program school for four weeks, and then went to work. In effect, we locked them up and said, "Don't come out until the job is done."

Q. How did they work out?

A. Very well. Our programs—in fact the entire operation—went off without any major hitches. That was in May, 1956. Since then, there has been continued growth in the company and in accounting volume, yet we haven't had to enlarge the department.

Q. Are there further savings and benefits you can point to?

A. Plenty. We're now handling—on just one-and-a-half shifts—a number of major applications, ranging from payroll through inventory analysis to "paper jet flying." In a typical area—monthly passenger accounting and control—we cut a 4,000-hour job down to 140 hours. And right off the bat, we picked up $350,000 a year in interest by our ability to process bills for the airline clearing houses in two days instead of in two weeks.

Q. You mentioned applications other than accounting. What about these?

A. They're interesting by-products of our electronic accounting equipment, and they don't take up much machine time . . . yet they have tremendous potential for us. Take this "paper jet" application we spoke of. Our engineers feed into the 705 such data as distances between cities, runway lengths, and weather factors. Against this we project the characteristics of new jet aircraft, and the 705 produces—among other vital data—the cost per ton-mile for each type of plane under different cruising conditions. We can know in advance which of these aircraft will pay off best for us. The 705 does in one-half hour what would have taken months and months of manual calculation.

Q. You installed this IBM 705 for accounting. How did you get into these other areas?

A. That's just the point. This 705 is much more than an accounting machine. It's a management machine. All you have to do is expose your people to the potential of electronic data processing—and before you know it, you have more good ideas for using it to improve internal operations than you ever thought possible.

Woodbridge: *"It's much more than just an accounting machine. It's a management machine."*

IBM DATA PROCESSING

INTERNATIONAL BUSINESS MACHINES CORPORATION
590 MADISON AVENUE, NEW YORK 22, NEW YORK

HOW MOA IS PLANNING FOR

With More Than 2973 Acres of Organized Industrial Tracts Available
In California's Metropolitan Oakland Area (Alameda County)

Whether yours is a light, medium or heavy industry, there is zoned industrial land in the Metropolitan Oakland Area (all of Alameda County) for your Western branch plant operation.

More than 13 different industrial districts in MOA range in size from nine to 1,000 acres: some within city limits, some in unincorporated areas. Other tracts have suburban and semi-rural locales. (See MOA Industrial Tract Location Map at right.)

Each location has been thoughtfully chosen to assure uncongested freight and traffic movement, with main rail lines and arterial highways alongside or nearby. Utilities are installed in some, readily available in others.

Organized industrial districts in MOA, for sale or lease by private interests, railroads, port agencies and municipal governments, are offered in many instances with adequate industrial financing, with owners building and leasing to tenants' specifications.

Tracts are adjacent to modern residential and shopping districts, all within easy transportation distance of plant sites. There's an ample supply of labor in MOA, living comfortably in an ideal year 'round climate, sending their children to excellent schools, enjoying outstanding recreational facilities.

Whether your Western branch plant will require one acre or 100, you see what you're getting—and know what it costs, when you locate in one of MOA's organized industrial tracts where tax rates, zoning, building restrictions, parcelling, easements and other ordinarily unknown factors are already established.

In the past two years, 95 new industries located in MOA, investing more than $36 million in new plants and equipment—and 254 others, already established and prospering, offered solid evidence of their faith in their future here by investing more than $63 million in major expansions during the same period.

INDUSTRIES CERTAINLY "GROW PLACES" IN MOA

WRITE FOR FREE, DETAILED INFORMATION

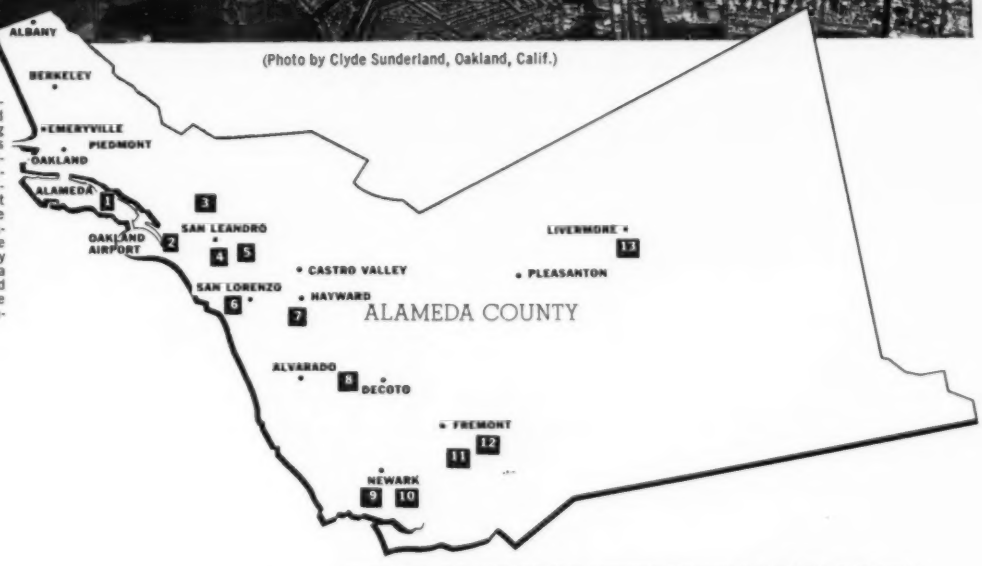
In addition to free, factual Data Sheets providing information on climate, markets, transportation, living conditions, sources of supply and a plant location map of 200 nationally known firms, you will receive, without cost, concise and complete information on any or all of the planned industrial tracts shown on the key map above: available acreage, owners' names, whom to contact, surrounding areas and conditions, availability of utilities, terms of sale or lease, and many other important facts to help you form your own opinion of the desirability of locating in MOA. Your inquiry will be held in strict confidence.

YOUR FUTURE...NOW!

...THERE'S AMPLE ROOM FOR INDUSTRIES TO "GROW PLACES" IN MOA

(Photo by Clyde Sunderland, Oakland, Calif.)

Aerial view of Port of Oakland Industrial Park (shaded portion) and surrounding area. The 1000-acre site is located between the Eastshore Freeway of San Francisco Bay and the Metropolitan Oakland Airport. A recent Stanford Research Institute study included recommendations that the area be restricted to light industry and warehousing, and that a modern produce center and a luxury motor hotel also be considered in the development of the Park.



KEY TO INDUSTRIAL TRACT MAP OF METROPOLITAN OAKLAND AREA (Alameda County)

(Showing Locations Of Currently Available Industrial Lands in MOA*).

Key No.	Owner or Tract Name	Acreage	Zoned for (Type of Industry)
1	Various Interests	55	General
2	Port of Oakland	1,000	Light (& Warehousing)
3	Clamac Industrial Park	130	Controlled
4	Valley Industrial Park	73	Light, Medium, Heavy
5	Western Pacific Railroad	9	Light
6	Bay Center Industrial Park	60	Controlled
7	Various Interests	661	General
8	Western Pacific Railroad	100	Heavy
9	Southern Pacific Railroad	470	Heavy
10	Southern Pacific Railroad	160	Heavy
11	Southern Pacific Railroad	20	Light
12	Western Pacific Railroad	50	General
13	Western Pacific Railroad	185	Heavy

*In addition to lands listed here, other industrial tracts are under development through long range projects undertaken by the cities of Berkeley, Emeryville and Pleasanton.

On the Mainland Side of San Francisco Bay

Metropolitan Oakland Area

ALAMEDA
ALBANY
BERKELEY
EMERYVILLE
FREMONT
HAYWARD
LIVERMORE
NEWARK
OAKLAND
PIEDMONT
PLEASANTON
SAN LEANDRO
RURAL ALAMEDA COUNTY

CALIFORNIA

Suite 208 • 1320 Webster St. • Oakland 12, California

BETTER AIR CONDITIONING FOR EVERYBODY EVERYWHERE

Carrier

Which is the best way to air condition a new building?

That depends on the building. The architectural design, how big it is and how it is to be used can make a big difference. To make sure of the best way to air condition your building, talk with the Carrier representative in your community. He handles every type of air conditioning. (Four of the many ways are shown at right.) So his only interest is to recommend the type that serves you best. Throughout the world, in thousands of dependable installations, Carrier air conditioning serves more people and more purposes than any other make. Good reason to call the Carrier dealer or office listed in your Classified Telephone Directory. Carrier Corporation, Syracuse, New York.

Ask your Carrier representative for copies of the free booklets, "Which Is the Best Way to Air Condition Your Business?" and "Which Is the Best Way to Air Condition Your Home?" Or write Carrier Corporation.

Planning a small store? Use a Carrier Year-round Weathermaker* in the back room with ducts running to the selling area. You need no other equipment for cooling and heating your store all year round.

Planning a small office building? Install a Carrier Multi-Weathermaker System, using self-contained units. They permit you to air condition the entire building all at once or you can do it in easy stages.

Planning a suburban department store? Locate Carrier System Weathermakers on each floor. Supplied with hot or cold water from a central plant, they provide comfortable year-round air conditioning.

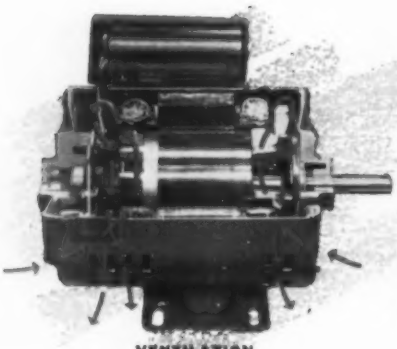
Planning a large office building? Specify the Carrier Weathermaster* System with new under-the-window Modular units which adapt to all building construction. Each office will enjoy its own climate.

*Reg. U.S. Pat. Off.

available in . . .

SPLIT PHASE,
PERMANENT SPLIT CAPACITOR,
CAPACITOR START-INDUCTION RUN,
POLYPHASE

NEW!



VENTILATION

CLEAN, MODERN DESIGN—Lightweight, die-cast aluminum head ends accurately fit precision machined steel body, assuring rigidity and good alignment. External finish is smooth, flow-free . . . blends well with any color.

IMPROVED, DOUBLE-END VENTILATION—Ventilating fans are integral with die-cast aluminum squirrel cage rotor, providing effective cooling of the windings from both ends for long life. Properly located openings give maximum cooling with minimum internal parts exposure.

MYLAR* POSITIVE INSULATION—Mylar* polyester film laminated to rag paper insulates slot cells and other strategic areas. Excellent dielectric qualities and resistance to tearing and aging, affording virtually permanent protection against dust, moisture and heat damage.

CHOICE OF MOUNTINGS, BEARINGS—Rigid, welded base or vibrationless, ultra-quiet resilient mounting with motor hubs floating on rubber cushioning rings permanently bonded to inner and outer metal bands. Either sleeve type or fully sealed ball bearings available. If desired, special construction permits re-lubrication of ball bearings. Bearings seat in precision bored steel rings cast into the aluminum heads.

**DuPont registered trademark*

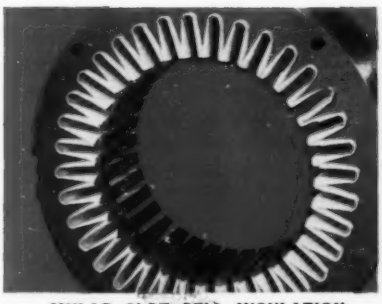
Robbins & Myers build motors
from 1/200 to 200 horsepower

R&M®

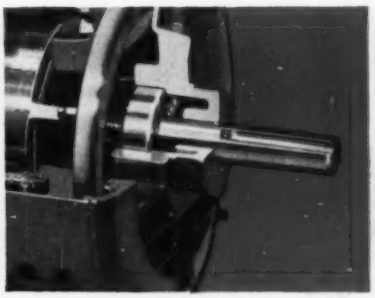
R & M's BROAD LINE OF SMALLER, LIGHTER, FRACTIONAL HP MOTORS

Robbins & Myers Re-Rated Frames 56 and 48

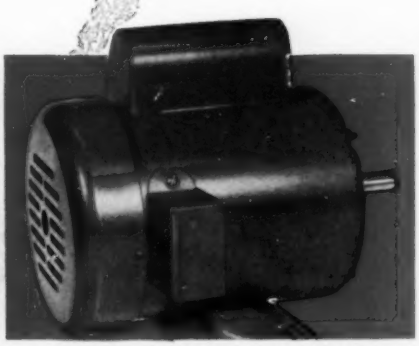
Here's a dynamic new motor—smaller, lighter, more versatile than older frame motors—yet with undiminished performance and reserve power. Completely new R&M "Model R" fractional horsepower motors will perform dependably and enhance the appearance and acceptability of your products. They range from 1 to ⅛ HP in types for all your applications: polyphase, permanent split capacitor, capacitor start single phase and (in the smaller ranges) split phase types. Designed in new NEMA frames 56 and 48, they are *lighter* due to new applications of aluminum, steel and copper . . . *smaller* thanks largely to a unique new ventilating system . . . *more versatile* because of weight, size and many other design features involving frames, mountings, insulation etc. Look over the big advantages these motors offer you! Then write today for R&M Bulletin No. 450—BZ.



MYLAR SLOT CELL INSULATION



BEARINGS



TOTALLY ENCLOSED—FAN COOLED

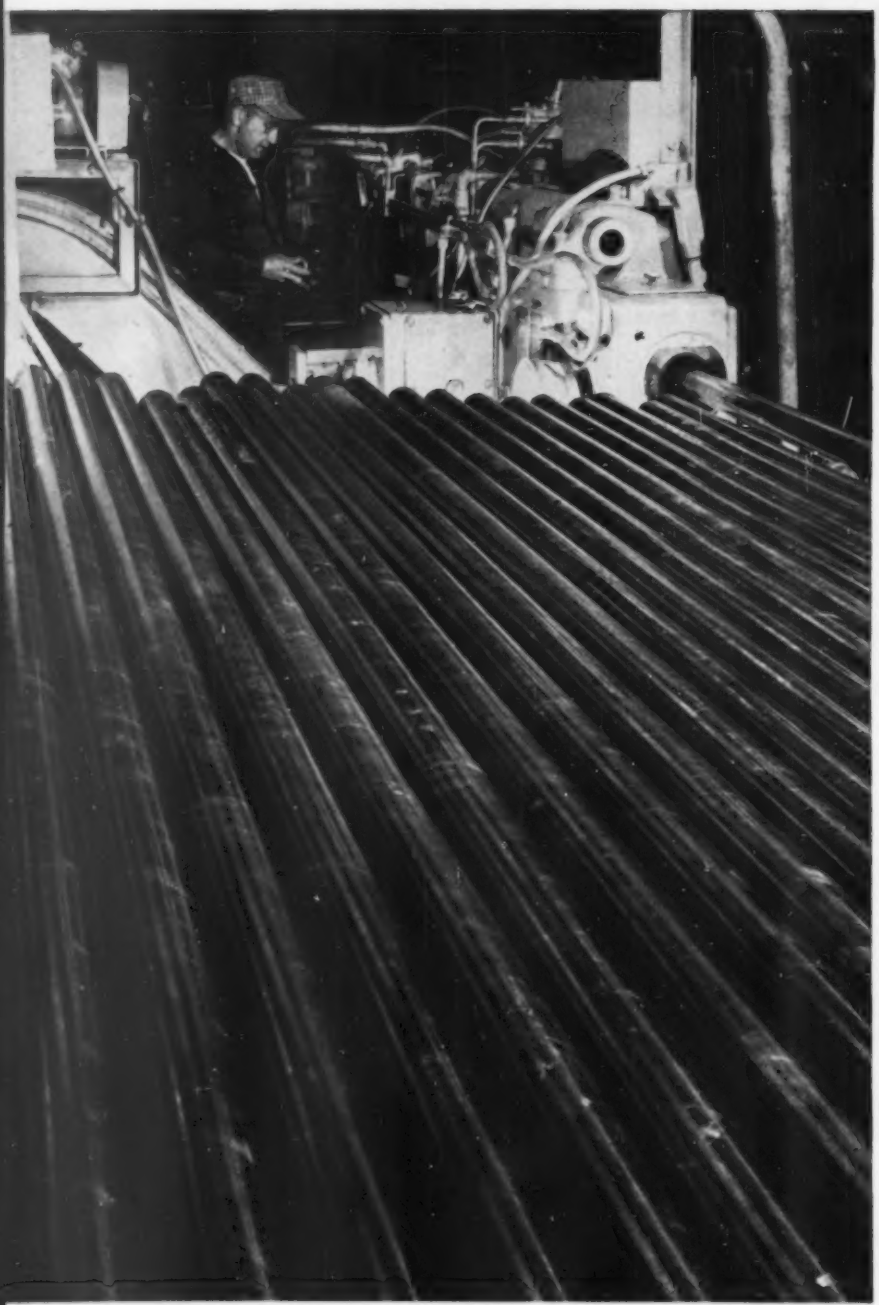
ROBBINS & MYERS, INC.

SPRINGFIELD, OHIO / BRANTFORD, ONTARIO

MOTORS FANS HOISTS MOYNO PUMPS (INDUSTRIAL) PROPELLAIR FANS

LIVE BETTER ELECTRICALLY

Brand New Transmission in 1958 Cars Uses Pittsburgh Steel Tubes For 3 Key Parts



Here's the raw material for a critical part in a brand new automobile transmission for 1958. These seamless mechanical tubes, a product of Pittsburgh Steel Company, will be cut to size on the machine in the background and processed into shafts for grade retarders.

Developing and producing a new transmission for a leading car challenges suppliers as well as the automaker himself.

Pittsburgh Steel Company's seamless mechanical tubes successfully met such a challenge by making good on three critical parts for a new transmission making its debut in 1958 models.

Ability of Pittsburgh Steel's tubes to meet this auto manufacturer's high requirements and rigid testing assures tube users in other fields of high, uniform quality.

Tubes from the mills of Pittsburgh Steel are used for these transmission parts:

1. Convertor Reaction Shaft—This shaft takes the torque (turning force) built up by the torque convertor and transmits that torque to the gears.

The convertor reaction shaft is made of seamless mechanical tubing with an outside diameter of 2.219 inches and an inside diameter of 1.505 inches. It is cut to size, centered, given centerless grinding, heat treated and broached—or sized—to a tolerance of .001 inch. Welding and final processing follow.

2. Grade Retarder Shaft—This part is a new feature in auto transmissions. It gives cars a new driving range which improves control on steep downgrades and on slippery surfaces without shifting gears.

The shaft is made of tubing 2.375 inches outside diameter and 1.531 inches inside diameter.

3. Front Pump Driven Gear—This gear is an essential part of the new transmission's hydraulic control system. It maintains correct oil circulation and pressure within the transmission.

The finished gear, measuring $4\frac{3}{16}$ inches o.d. and approximately $\frac{5}{8}$ inch on the i.d., has 36 gear teeth. The teeth are broached simultaneously on a vertical broacher.

All three parts are made from carbon steel seamless mechanical tubing which is cold drawn and finished to

Convertor reaction shafts, made from Pittsburgh Steel's seamless mechanical tubing, are assembled into transmission cases at this station in an automaker's huge plant. The shaft transmits torque to the gears.

exacting specifications. The automaker who chose Pittsburgh Steel's tubing for three transmission parts carefully spelled out his specs for fine grain structure, machinability and weldability.

Those specifications were met by skilled tube mill men so that finished tubes were uniform—from length to length and from one shipment to another.

A measure of their skill is demonstrated by broaching which gives tubing grain structure a critical test. Rejects from peeling or chipping drop with Pittsburgh tubes.

Machinability also is a severe test. In operations where tolerances are held to one-half of one thousandths of an inch, good machinability results in even, smooth production of parts which will pass sharp eyes of inspectors.

Welding operations carried on in automated lines can't be a haphazard operation or one in which quality of welds isn't uniform. Here again Pittsburgh Steel tubes keep production flowing smoothly and produce welds which hold up in field service.

Whether you're making automobile transmissions, hydraulic cylinders, axles or any other product requiring good tubing, you'll profit when you turn to Pittsburgh Steel. Skill of the men in the mill, modern equipment, engineering and metallurgical service available all combine to give you a satisfactory product—one backed by service and dependability.

Act today to get better tubes and service. Telephone or write the nearest district sales office listed below. You'll be glad you did.

Coming off an automated production line, these gears will be assembled into a front pump on a new type of auto transmission.

Pittsburgh Seamless Distributors

Baker Steel & Tube Company
Los Angeles, California

Chicago Tube & Iron Company
Chicago, Illinois

Cleveland Tool & Supply Co.
Cleveland, Ohio

Drummond McCall & Co., Ltd.
Montreal, Quebec, Canada

Edgcomb Steel Company
Philadelphia, Pennsylvania

Gilmore Steel & Supply Co.
San Francisco, California

Earle M. Jorgensen Co.

Perry Kilsby, Inc.
Los Angeles, California

Mapes & Sprowl Steel Co.
Union, New Jersey

Metal Goods Corporation
St. Louis, Missouri

Miller Steel Company, Inc.
Hillside, New Jersey

A. B. Murray Co., Inc.
Elizabeth, New Jersey

C. A. Russell, Inc.
Houston, Texas

Ryerson, Joseph T. & Son, Inc.
Chicago, Illinois

Solar Steel Corporation
Cleveland, Ohio

Steel Sales Corporation
Chicago, Illinois

Tubular Sales
Detroit, Michigan

Ward Steel Service Company
Dayton, Ohio

Pittsburgh Steel Company

Grant Building • Pittsburgh 30, Pa.

District Sales Offices

Atlanta, Chicago, Cleveland, Dallas, Dayton, Detroit, Houston, Los Angeles, New York, Philadelphia, Pittsburgh, Tulsa, Warren, Ohio

50.7% or 3%?

When a Company "Sees" the Facts on Eye Protection ... Eyes Are Saved and Costs Go Down!

GREIST MANUFACTURING COMPANY, NEW HAVEN, World's Largest Manufacturer of Sewing Machine Attachments, Precision Measuring Instruments, and Fine Quality Metal Stampings, is another company that can prove to you very quickly that eye protection pays off! They state: "The dramatic turning point in our Eye Safety Program occurred shortly after January 1955. Our reportable eye cases fell to a low of 11.1%. This corresponded with a percentage of 38.4% in 1951, 50.7% in 1952, and 39.6% in 1953. In 1956 the percentage dropped to 6%. *In 1957 we had a new low of only 3%. We had 30 reportable cases, of which only one was an eye reportable case.*"

Apart from humanitarian considerations, an eye protection program is amply justified by the money it saves in both direct and hidden costs! Medical and compensation costs alone for the loss of one eye can mount to four and five figures. Hidden costs for the average eye accident are estimated at 4 times the direct costs.

What to do? Install an American Optical Eye Protection Program. It works! Only safety standard lenses and safety standard frames are used. There is no substitute for safety. Write us today or call your nearest AO Safety Representative.

Always insist on ® Trademarked Lenses and Frames

American Optical COMPANY
SAFETY PRODUCTS DIVISION

SOUTHBRIDGE, MASSACHUSETTS
Branches in Principal Cities

BUSINESS OUTLOOK

Reports now coming out on January business leave much to be desired. Results for **February**, in turn, **hold no promise of betterment.**

There was, however, **Pres. Eisenhower's statement** on Wednesday that **improvement should start in March.** He promised new plans to hasten the upturn, if need be, but offered nothing positive at this time.

His assurance seemed to inspire little enthusiasm in Wall Street; **stock turned distinctly soft after its publication.**

—•—

This week we began to get measurements on **business as it was last month.** The employment-unemployment figures more or less set the tone.

- About **a quarter-million fewer people had jobs** than last January.
- Worse than that, with the number of job hunters growing apace, **unemployment rose to 4½-million** (⅓-million higher than a year ago).

Quite a few people always lose jobs after Christmas, of course. A rise of 500,000 to 800,000 in unemployment from December to January is by no means unusual. **But the jump this time was 1.1-million.**

More jobs still are available in nonmanufacturing lines than at this time last year. However, **the year-to-year decline in manufacturing employment** now has widened to more than a million.

Factory employment last month was 15.9-million—down from 16.3-million in December and from a boom peak of 17¼-million in 1956.

The fact is, you have to go back to the summer of 1954 to find a lower level of manufacturing employment than last month's figure.

The December-January **dip in factory jobs** was concentrated in the production of **primary metals, machinery, and automobiles.** Here you have a sort of cross-cut of the soft spots in the economy:

- **Metals** in particular were feeling the liquidation of inventory.
- **Machinery** suffers from the drop in industry's capital goods outlays.
- **Autos** are depressed by the consumers' general attitude of caution.

—•—

Inventories were pared moderately late last year. But the stocks of durable goods manufacturers (whose holdings are the most critical) still had gone down very little in relation to the decline in new orders and the value of goods shipped.

Incoming orders of durable goods producers were about 25% lower than they were a year earlier; **shipments** slipped 12% in the same period.

By contrast, **inventories** started January above $31-billion, off only about three-quarters of a billion from their peak. And they ended last year higher than 1956 (when new orders were $3-billion a month better).

Unfilled order backlogs of durable goods producers show the full effect of the way bookings have fallen off.

Even though manufacturers began to pull down output around mid-year, **the value of shipments has exceeded new orders in every month**

since the end of 1956. In most recent months, the overdraft has been deep.

As a result, **unfilled orders have come down** by an average of almost exactly $1-billion a month for the last 12 months.

They now stand at **$48½-billion** against **$61-billion** a year ago.

—•—

The end of inventory liquidation and a resumption of buying by consuming industries can't come too soon to suit the metal trades.

Production cutbacks, so far, **haven't been enough to balance supply with demand, as the zinc** industry was admitting ruefully this week.

Domestic customers (barring the stockpile) took only 58,000 tons in January. Add on 10,000 for stockpile, and the total shipments still were under 70,000 tons against production of 82,000.

As a result, **refiners' stocks** hit a four-year high at 180,000 tons.

Faltering **prices** abroad and inadequate **demand** at home continue to prod zinc producers into still further **production cuts.** Eagle-Picher this week announced the closing of a smelter in Oklahoma, idling about 650 workers. The same smelter had ended a four-month shutdown only last November.

—•—

Steel production in February not only is being curtailed by the low operating rate but by the short month as well.

At the rate the industry has been producing so far this month, output apparently **will fall a little below 6-million tons.** That would compare with 6.7-million tons in January and almost 8.9-million a year ago.

—•—

Homebuilding apparently has not responded up to now to the increased supply of mortgage money and somewhat easier FHA terms—but **neither has it been jolted by the business dip.**

Housing starts in January were at a seasonally adjusted annual rate of 1,030,000, according to the Commerce-Labor Dept. monthly estimate. **That's right on the average for the last half of 1957.**

Housing, in the next few months, will be **looking relatively vigorous**—if for no other reason than that the comparisons will be with the leanest month of the 1956-57 slump in residential building.

In fact, **the dollar value of work done on new homes has almost caught up with year-ago levels.** January weighed in with $1.1-billion of such construction, barely 2% under a year ago.

And the total would have looked even better had not **additions and alterations** fallen behind a year ago for the first time in a long while.

—•—

Expenditures by state and local governments (which have been a steadily expanding factor in the economy) now are running into revenue pinches (page 42). Even one of the richest states—Texas—faces difficulties. The Lone Star State relies heavily on severance taxes on petroleum production; those now are curtailed by restricted oil output and sagging prices.

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ATOMIC GENERATING PLANT: One in a series of great sources of power

TURNING RAW POWER INTO *WORKING* POWER

Atomic-generated power, like any other, can only be as efficient as the equipment that controls and distributes it *inside* your buildings. The electrical system that best translates raw power into efficient *working* power is the specialty of the BullDog division of I-T-E. Let a BullDog field engineer carefully study your specific commercial, institutional or industrial needs. He'll put your electrical system in top shape *and keep it there.* Call on him. Draw on the talent, leadership and better than 55 years' experience and know-how of BullDog and I-T-E.

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Observing NATIONAL ELECTRICAL WEEK

What made the Nutshell obsolete?

Remember, when you were a kid, how walnuts and almonds and pecans came in their own natural package —the nutshell? Trouble was, you could lose your temper —or a tooth—trying to crack one open.

Now, nutmeats come shelled and flavor-fresh in *cans* . . . vacuum-sealed cans that open quicker than you can crack a walnut—let alone a whole bowlful.

The cans used by R. E. Funsten Company for its nationally-known line are produced and lithographed by the Heekin Can Company, using DAREX "Flowed-in" GASKETS for the all-important vacuum seal. A thin ribbon of DAREX Sealing Compound is flowed around the inner rim of the can ends. A brief heat-treatment converts the compound into a solid, rubbery gasket, ready for vacuum sealing.

Dewey and Almy originated this automatic gasketing process, which now seals over 50 BILLION containers of all kinds every year. Now the automotive and electronics industries are finding it particularly adaptable to *their* sealing needs, too.

The complete DAREX "package" consists of sealing compound, application machinery and technical service. It may have a place in *your* plant, helping you to seal better . . . and *sell* better.

DAREX (Flowed-in) GASKETS

THE **STREAM**-LINED SEAL OF MODERN INDUSTRY

DEWEY AND ALMY
CHEMICAL COMPANY
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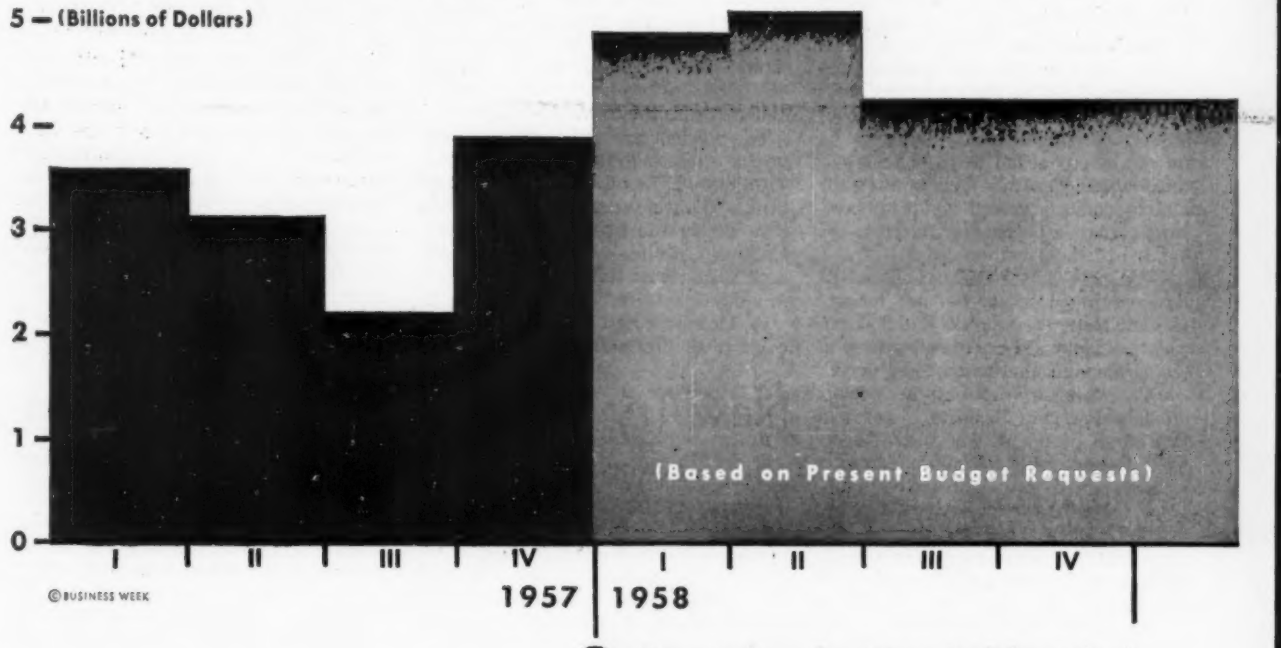
BUSINESS WEEK

FEBRUARY 15, 1958

NUMBER 1485

Contract Awards for Munitions Production



● Figures show the upturn in defense business. Most companies say that they aren't feeling it yet, but they are aware that contracts take time to trickle down. So they're confident that new business is . . .

On Verge of Reaching the Plants

Most contractors out in the field say they haven't felt it yet, but defense business is rising sharply (chart). Contract awards hit bottom in last July-September. Now they're on a climb at least through next June, and—as a West Coast aircraft executive told a BUSINESS WEEK reporter—there's "more whistling in the corridors" at defense plants.

Defense industry people who talked to BUSINESS WEEK reporters this week agreed almost to a man that the future is rosy, even while they were denying that their order books had fattened up. They saw nothing incongruous about it.

It's simply a matter of waiting until the new business filters down to them, they say—prime contractors and subcontractors alike. They mostly talk of a month or two before this will happen.

• **Slow Trickle-Down**—According to Pentagon statistics, the 1957 October-December quarter's awards for procurement and production totaled $3.9-billion, compared with $2.2-billion for the previous quarter. On the face of it, this would indicate a rather sharp turnaround in defense business between September and yearend.

Actually, however, from July 1 until late November, the Pentagon awarded only a token volume of new contracts. Month by month, new orders rose from only $300-million in July to $1.3-billion in November and $1.6-billion in December. There could be as much as a month's lag for negotiating before a contractor got the benefit of the new business, so the upturn really came later than quarterly figures indicate.

Moreover, some of the early new business was parceled out in big chunks for the highest-priority projects, and the effect hasn't yet percolated down to industry at large.

• **Assured Business**—Nevertheless, the business is there, and defense industries are confident of sharing in it. That's why they're optimistic, despite the paucity of firm orders.

Asst. Secy. of Defense (Comptroller)

Wilfred J. McNeil says 1958 will be "the biggest year since Korea" for new military business. In the first half, the Pentagon expects to award $10-billion in procurement and production, plus another $3.6-billion for softgoods, services, maintenance, construction, research and development. In the last half, the awards are projected at $8-billion or more for hardware, $2.3-billion for other spending.

The Pentagon's figures all include purchases for foreign military aid, hence they are higher than contract-award figures cited by the President this week.

• **But When?**—In talking to BUSINESS WEEK reporters, many businessmen made it clear that, although they were resigned to waiting for this burst of business to reach them, they were by no means reconciled to it. They sputtered about Pentagon red tape (while Defense officials talked darkly of companies that expected contracts to be handed to them without effort).

"We have a tremendous amount of business in prospect, but we haven't seen anything yet," says a Buffalo company president. "They're still sitting on orders for stuff they know they need."

"There's been lots of study and lots of talk—but no business," snaps a Pittsburgh president, who finds his defense business still going down "appreciably."

In Detroit, where businessmen are getting used to disenchantment, the president of a company specializing in defense work reports a continuing air of uncertainty and do-nothingness among people from whom he is seeking contracts, though orders have been in the talking stage since New Year's.

• **Fortunate Few**—Not all companies are still so empty-handed. A few have already benefited by the rise in military ordering—and none too soon in some cases.

For example, a company in the Milwaukee area that has done little defense business since the Korean War was about to lay off more men. Then a batch of orders for military components rebuilt volume. Defense business accounts today for between 10% and 15% of total sales and, a vice-president says, "if new subcontracts continue at their present rate, defense work may get up to 20% or 25% of our business within another month."

As might be expected, companies closest to research and development got the first lift from increased military spending. A lab in New York State says: "About Dec. 1, we began to receive contracts we had been trying to get. Since then we've gotten about $5-million in contracts."

• **Didn't Hurt Much**—Just as the up in defense spending takes time to exert its effect, so did last year's down in the cycle prove to be shallower than you might expect. A surprising number of executives said their companies haven't been vitally wounded—yet.

Yes, they have laid off workers, they agreed, but chiefly the rank and file. Many companies say they have been living on their backlogs, trimming away labor deadwood, and stretching out schedules. "We weren't reaching the earlier schedules anyway," says one manufacturer, "so it only meant more realistic scheduling."

What saved them from a worse fate, defense contractors suggest, was the reversal of the downtrend before it had gone too far. The layoffs in many cases should be attributed to the general falling-off in business rather than to defense cuts, they say.

In the government's economizing, says a spokesman for a big company with only 17% of volume in defense work, "We were stuck with a pin rather than hit in the head with a cleaver." Even so, another says, "Had the cutback plans been fully implemented, it would have been serious."

A Detroit company whose defense work is all "sub-subcontract" supports this view. What happens to prime and secondary contractors takes three to six months to affect this company. So its business held steady until December, when it suddenly dropped 50% from the month before.

• **Living With It**—Not all companies are happy about riding this roller-coaster of defense volume, though one aircraft manufacturer shrugs off the problem with "It's something we've been contending with since the Wright Brothers."

A New England electronics company feels less philosophical about this. It has already cut its staff by 65%, half in engineers. "Government work finds its way down to small subcontractors much later than to large prime contractors," its president points out,

This sort of thing rouses cries of "false economy" in some quarters. An Eastern manufacturer laid off about 12% of his force when the economy wave from the Pentagon hit his plant last fall. "We will get about half of them back," he says,

Most companies, however, foresee little trouble with shortage of engineers.

New Try for Lend-Lease Post Offices

Private builders and investors show more interest since Treasury loosened up on its financial leash.

The Administration is making a new effort to get post offices built through the lease-purchase approach—this time with overtones of a business-stimulation program.

If White House plans go according to schedule, $2-billion will be spent over the next five years on new post office buildings and modernization. Of this, $875-million will come from government expenditures and the rest is to be obtained from private lenders such as insurance companies, trust funds, and banks.

White House aides stress that the project was "taken off the public works shelf" because of its usefulness in combating the rise of unemployment.

• **Better Prospects**—The Administration has had one disappointing experience with lease-purchase. Back in 1956, the General Services Administration called for bids on buildings to be put up by private builders with funds borrowed from commercial sources, then purchased by the government in payments extending over 10 to 25 years. The program never got off the ground; the private builders stayed away, due to high interest costs and to more profitable operations then open to investors and contractors.

In a series of recent tests, however, GSA has uncovered considerable interest. Even before the White House announcement, GSA planned to award 50 projects this year and as many more next year. The agency was figuring on a $700-million program. The Administration now hopes to raise this to the $2-billion mark because of lively competition for the projects on the basic GSA list.

• **Factors**—Two factors are contributing to the brighter picture:

• In the 1956 effort, the then-Treasury Secy. George M. Humphrey insisted on a 4% interest ceiling on financing costs. This obstacle was removed when Robert B. Anderson took over the Treasury post last year. GSA is now authorized to accept bids without any ceiling on the interest rate.

• In 1956, GSA assumed that cost estimates approved by Congress and the Budget Bureau in 1955 and 1956 were ceilings that could not be exceeded. Now the Comptroller General has ruled that some adjustment upward for rising costs is permissible.

Postmaster General Arthur E. Summerfield presented the Administration's new program to Congress this week. He said that 1¢ of the proposed 2¢ raise in first-class postage would finance the government's share. The program will get sympathetic Congressional handling due to its anti-recession flavor, no matter what Congress does about the postal rate rise.

Space Program Gets a Lift

● New Defense Dept. agency and 17-man Senate committee give fresh impetus to job of working out a U. S. space organization and an over-all national policy.

● Basic fight is over civilian vs. military rule.

● Beyond that, Killian group is sifting a flock of plans for setting up space exploration.

In an almost matter-of-fact way, Washington is now debating such questions as how to set up a scientific timetable for launching new satellites and manned vehicles beyond the earth's atmosphere, and whether a national policy for space should call for civilian or military control.

This week, the U.S. took several steps forward in the drive to conquer space:

• The Defense Dept.'s long-planned Advanced Research Projects Agency was finally set up to direct research and development of both an anti-ICBM defense and space weapons. Roy W. Johnson, a General Electric Co. vice-president, was named as its director.

• The Senate organized a 17-man special committee on astronautical and space exploration, headed by Senate Majority Leader Lyndon B. Johnson of Texas, to frame a comprehensive "national policy toward the age of space." The House will likely form a similar group. In the offing is basic legislation on space matters, comparable in scope to the Atomic Energy Act of 1946 (page 172).

• A White House science advisory group, led by Dr. James R. Killian, the President's special assistant for science and technology, is blueprinting the objectives of U.S. space exploration, and specifying the type of government organization to run the program. The plan will tie into the Administration's upcoming package of military reorganization proposals (BW–Feb.8'58,p30).

I. Military or Civilian Control?

Though these moves do not mean direct physical progress toward the conquest of space, at least they mark an advance in getting the U.S. bureaucratic house in order to handle the job.

Behind the organizational jockeying for direction of space exploration lies a controversial issue reminiscent of the early debate over atomic energy: whether civilian authorities or the military establishment should be in charge.

The atomic energy issue was resolved by creating an independent civilian agency, the Atomic Energy Commission, to exploit the newly discovered technology for both military and civilian purposes. But the armed forces got an influential role through a military liaison committee established by law in AEC.

In essence, military atomic activities have become a joint venture of the AEC and the Defense Dept.

• **Struggle**—The situation isn't so clear-cut in the space flight field. So a struggle for bureaucratic control of space is shaping up.

Right now it seems inevitable that a civilian agency—either AEC, the National Advisory Committee on Aeronautics, or a new bureau—will get over-all control of space exploration. There is powerful resistance—in the scientific community and in Congress—to placing the space program under Pentagon direction.

The proponents of civilian space control believe that if the Defense Dept. were to run the show, the search for general scientific knowledge would be submerged in the push to build military hardware.

The military professionals groan that the introduction of new civilian authority into space exploration might delay development of weapons and divert defense money.

Two months ago Asst. Navy Secy. Garrison Norton warned that "Buck Rogerish projects" to explore space would "dilute" development of ballistic missiles and other new weapons.

As a result of the strong Congressional opposition to Pentagon control, the Administration's relatively innocuous plan to set up the new Advanced Research Projects Agency in the Defense Dept. was almost squashed.

II. New Agency's Job

Under the original plan, ARPA was to be independent of the military services, and to pull together in one shop all advanced space weapon development.

A $10-million budget was set up for the next four months, and an additional $340-million earmarked for fiscal 1959.

The military pros sniped at the plans, arguing that ARPA would duplicate functions of the services and slow down development of space weapons.

• **Compromise**—The new agency now shapes up as a compromise. It has a mandate to direct space weapon development indefinitely, but will coordinate general space science research only until the Administration and Congress iron out final details for over-all civilian control of the space program—or no longer than one year.

The agency's role will be somewhat smaller than originally conceived. Though it is authorized to make contracts and build research facilities, it expects to work through the military services and existing civilian agencies as much as possible.

III. Setup for Exploring Space

The Killian group and the new Senate space committee are studying a flock of proposals for organizing the space exploration program. Over-all civilian control is basic to most. Four plans stand out:

Put space exploration under the AEC. This is based on the theory that only atomic energy will be able to provide continuing power for large-scale, outer-space propulsion.

Bills to authorize AEC authority over the space program have been introduced.

AEC has worked on development of nuclear-powered rockets for at least three years, now seeks additional funds to accelerate work on a nuclear rocket and on an ionic jet rocket, which can use atomic energy as a power source (page 119).

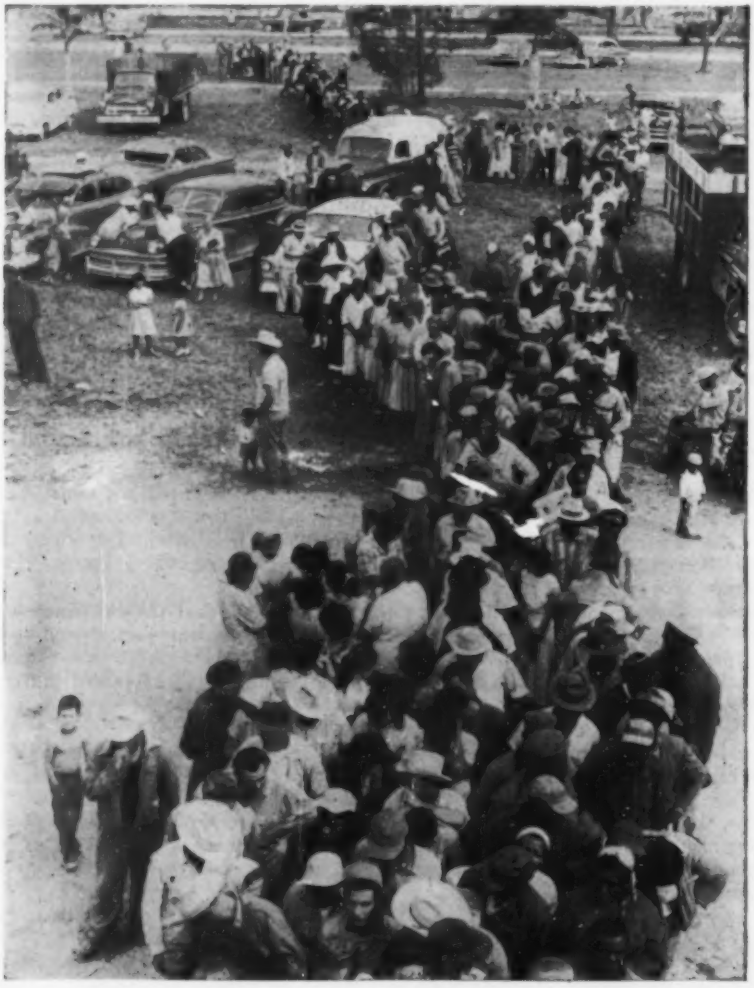
Let the National Advisory Committee on Aeronautics supervise general space science research, while the Defense Dept. continues development and operation of military missiles, satellites, and space vehicles.

NACA is already up to its neck in space research, in several fundamental studies.

Create a new agency, the National Space Establishment, to conduct space exploration. This is being pushed by the influential American Rocket Society, a professional organization, and the National Academy of Science's rocket and satellite panel. The agency would be civilian-controlled.

Have the National Science Foundation direct space research. A bill to this effect has been introduced by seven Democratic senators. Under this plan, exploitation of space science research for military purposes would be under the Pentagon.

HARDY SUNBATHER, braving chill Florida breeze in well-wrapped solitude, symbolizes this winter's heavy blows to state.



BREADLINES, not seen in Florida since Depression, feed 10,000 migrants made jobless by crop freeze in Homestead (above), 4,000 elsewhere.

SMUDGE FIRES, from old tires, keep air warmer to protect not only citrus crop but, as at right, a cucumber field; unprotected crops were all killed.

Why All of

"We have had colder winters, rainier winters, and windier winters," moans a Miami weatherman, "but we never had anything as windy and rainy and cold as this, all in the same year."

Millions of Floridians, their normally buoyant optimism frozen up along with the state's withered crops, wondered this week if good weather—the kind that's needed if the Sunshine State is to prosper—would ever return.

The reasons for their plunge into pessimism are apparent in the pictures. The state's worst winter ever has left many of them on the brink of economic disaster if not already ruined. It will take weeks to assess the final cost of the deep freeze—plus a few side effects from the country's general recession. But it's already clear that total losses of Florida's four major industries—tourism, citrus, cattle, and farming—will run into the hundreds of millions, perhaps as high as $250-million.

• **Weather Story**—The winter's tale is a story of Florida superlatives gone astray:

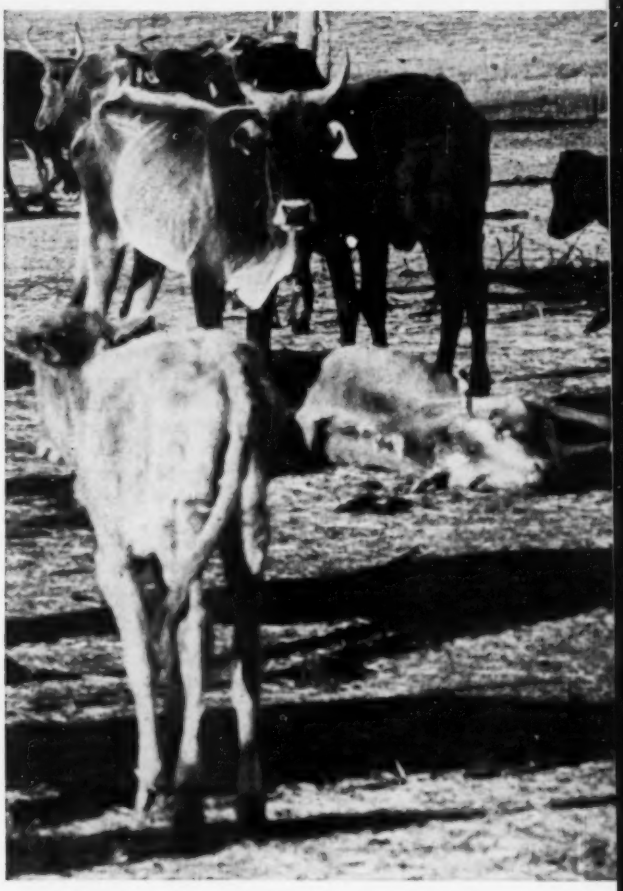
• November was the second wettest on record in Greater Miami.

• December brought the $30-million citrus freeze of Dec. 12-13, which also chilled the already flooded cattle, knocked out young, tender crops just starting to grow in the rich mucklands around Lake Okeechobee.

• January piled up the superlatives-in-reverse. It was Miami's second coldest and third wettest, with a near-record gale thrown in, and another freeze that also hit upstate. The farm-

Florida Is Crying for More Sun

CHILLY TOURISTS get a break on rates, but quickly head homeward, leaving hotel rooms empty.



DYING CATTLE can't eat frozen grass, get pneumonia from wet ground.

lands of South Dade County, unscathed until then, took a beating.

• February started off with the "great leveler"—the freeze of Feb. 4-5, when Miami suburbs registered an all-time low of 28F, Tampa hit 24F, and the Dade County and Lake Okeechobee crops were virtually wiped out.

What this succession of blows is doing to Florida's economy is a story mainly of calamity and gloom, brightened here and there by a few unexpected rays of light. What makes it worse is that weather forecaster Gordon Dunn can't find much relief in sight.

• **Tourist Slide**—Miami Beach's mainstay, the tourist trade, is off 20% to 25% in the hotels, even more in the plush motels to the north. Miami Beach hotels are running $12-million to $15-million behind normal gross income, at a conservative estimate. Tourists are shopping for "deals," and there are rumors that some mortgage-burdened hotelmen probably will go under unless the tide turns. For Florida as a whole, state Hotel Commissioner Richard Edgerton estimates tourist business at 20% off up to the end of January.

But gas taxes on December gasoline sales hit a new monthly peak.

Oddly, December and January brought 5% to 10% more visitors than last year, but they didn't stay—the weather drove them home in a hurry. And the rush of hotel building in recent years (BW—Dec.14'57,p42) means that southern Florida must have an exceptionally good season to fill its hotels. The sales job done by Cuba, Puerto Rico, and even Israel, also plays a part.

Businesses allied to tourism have felt the punch, too. Car rental agencies, which stocked up for an expected peak, groan about idle cars. The sightseeing and charterboat business has dropped as much as 50%.

But there are consolation prizes. Tourists, driven from beach and sea, flock to stores and race courses. Miami area department stores are up 5%; Hialeah shows only a minor drop.

• **Crop Freeze**—The story on Florida's farms is even more serious. Florida's winter vegetable crop normally brings $50-million to $60-million. The December freeze destroyed most of it outside of South Florida, January rains hurt plenty, then February's freeze hit unprotected crops in the south, too.

All but 5,000 acres of a 25,000-acre tomato crop were destroyed, and the yield on what's left will be only 30% to 70% of normal. Corn is stunted. The potato crop will be only one-third of normal. Obviously, this means higher prices for consumers over the nation, as well as losses to Florida.

The tremendous crop loss threw some 14,000 migrant workers out of jobs and into breadlines (picture, page 34). At Homestead, focal point of South Dade County's rich farmlands, more than 10,000 have been fed daily. To the northwest, at Immokalee in the Everglades, about 4,000 have been getting handouts since December. Government surplus food has helped, and Florida has started a $45,000 "little WPA" to provide work.

But farmers in these areas are planting again. Barring further freezes, crops normally marketed in April and May should reach consumers' tables.

In the meantime, Homestead merchants are suffering heavy losses.

• **Cattle Morgue**—Unless there's a turn in the weather, though, Pres. J. O. Pearce, Jr., of the Florida Cattlemen's Assn., estimates that 275,000 head of cattle—a quarter of all those on the ranges south of Ocala—will die, and cattlemen will lose $60-million by mid-March. Thousands have died already of starvation or pneumonia. Wet and freezing weather makes pasture grasses inedible, and cattle that bed down in wet pastures get pneumonia.

The U.S. Dept. of Agriculture has extended to Feb. 28 the time in which stockmen can get free feed grains, but Pearce and others call the program a "flop," say cattlemen who can—and are willing to—pay must pay the government more for surplus grain than local feed dealers would charge if they could get supplies.

• **Citrus Future**—Most of the damage to Florida's citrus crop was done in the big December freeze. With the late fruit still to come in, estimated losses up to now range around $30-million. Citrus men say that if it weren't for the frozen concentrate systems (BW—Jan. 11'58,p32) the loss would be double.

Only the East Coast and the St. Petersburg area were spared serious damage to the citrus crop.

Largely on the basis of "salvage of more freeze-damaged oranges than previously expected," the U.S. Dept. of Agriculture this week raised its estimate of this year's Florida orange crop from the 80-million-box figure of a month ago to 85-million (still below the pre-season estimate of 102-million). Its estimate of 32-million boxes of grapefruit —6-million short of the pre-season expectancy—was unchanged. Many Floridians, however, feel that even the January estimates were too high.

What worries Floridians most of all is not this year's crop but the damage to young trees—one-sixth of the state's 600,000 acres of fruit trees. "It will be a miracle if they come through," says a Citrus Commission official. That means, he adds, that "we'll be lucky" to get as many as 80-million boxes of oranges next year, and it will be two or three years before the state can again hope for the record crop it once looked for this year.

Why a Big

BIG INDUSTRY last week was attacked for bigness—and attacked, surprisingly by one of its own. The attacker was George Romney, president of American Motors Corp. (annual sales last year: around $400-million), and he finally brought out into the open an issue that has been just beneath the surface in the Senate hearing on pricing and concentration in the auto industry for two weeks.

The issue: Are the Big Three auto companies—particularly General Motors —too big? This question has baffled a decade of Congressional inquirers. Romney's answer is yes.

As a cure for what he called "supercolossal size," Romney suggested the present giants give birth to new companies—a system of divestiture, but with a couple of novel twists. The cry of "Break up General Motors" is not new to a Congressional hearing room. But Romney fitted it neatly into a frame of reference fashioned by preceding witnesses in the current hearing.

I. Setting the Stage

Walter Reuther, president of the United Auto Workers and the first witness before Sen. Estes Kefauver's antitrust subcommittee (BW—Feb.1'58, p30), never quite got around to assessing GM's size. He was busy making a plea for his plan to split the profits of the Big Three companies. But he did say "it would be a healthy thing for the American economy if we had more companies in the automobile industry."

Businessman Hit Big Business

● **Until George Romney (picture, left) appeared, the Senate hearings on the auto industry heard little criticism of the Big Three's size—not even from Walter Reuther.**

● **But AMC Pres. Romney startled Detroit—and Washington—by proposing antitrust limits on the market share any one company could command.**

● **The motivation for this big businessman's attack on big business: a passionate conviction that monopoly, by either labor or industry, is bad for America.**

● **Whatever his purpose, though, Romney cut through to an issue that's basic to Kefauver's investigation of pricing and concentration in autos.**

Following him, General Motors Pres. Harlow H. Curtice said that GM's growth from one-third of the market in 1929 to better than one-half in 1954, 1955, and 1956 is "a healthy situation for the country and the industry in general, for we are offering the public outstanding values." There are not more competitors in the industry, said Curtice, because of a "shortage of customers"—the products of unsuccessful companies just didn't measure up.

Ford Motor Co.'s vice-president (finance), T. O. Yntema, first focused attention on auto company size in discussing Reuther's proposal for a price cut and splitting profits: "If you reduce the prices and profits in this industry substantially, you will kill off two of the competitors, and you will weaken Ford and Chrysler and leave them limping. . . ."

• **Enter Romney**—Then, late in the week, Romney walked into the hearing room with the statement that size has no advantages efficiency can't bring. "It is possible to be one of the best without being the biggest," he declared. But, he added, the odds are against any company now entering the auto business, even in a small way: The capital requirements are immense, and the contracts between big unions and big companies run up everybody's costs. There is a possibility, Romney implied, that only one auto company might be able to survive. And, he said, economic concentration in the industry is a threat to the nation.

To get more companies in the auto business, Romney suggests antitrust laws provide that when a company engaged in a single industry exceeds 35% of the market, it must draw up a plan of divestiture that would bring its sales within the 35% limit. If a company were engaged in more than one industry, the limitation would be 25%. Income and capital gains taxes arising from such a procedure would be deferred.

If these percentages were applied in the auto business, said Romney frankly, General Motors and Ford "would each become the source of new companies."

• **Unprecedented Stand**—Never before in the memory of automobile old-timers has any executive in the industry said that any auto company is too big.

People who know Romney will agree that the reason for his proposal is a deep conviction—slightly old-fashioned to cynics—that his country is in danger.

II. Why Romney Did It

George Romney is stirred by the belief that America's greatness and material prosperity have stemmed from the competitive strivings of entrepreneurs. He is unashamed to be easily and deeply moved by thoughts of his country's history and traditions of freedom; once, in a public speech about the monopoly threat of big unions and big businesses, he broke into tears.

For some years, he has been privately lamenting the trend toward merger among companies and arguing the need to keep the economic system vital and creative by the birth of new companies.

All Romney did last week was to say in public what he has said in private: The big auto companies, in their own and the national interest, should split into smaller parts; big labor unions, too, should be split so that a union such as UAW, representing all companies, could not exert its full force on GM at one time, Ford at another, or even on "little" American Motors.

It's typical of Romney's pattern of thinking that he picked this time to say these things publicly. For nearly four years he operated American Motors in the red (BW—Jan.11'58,p78), but in the first quarter of this fiscal year AMC netted nearly $5-million. While his company was losing money, he says, any proposal to break up General Motors would sound like a cry for help. And as he has said repeatedly, he doesn't want any government help to stay in business. "We have to have an economy," he told the Kefauver group, "where the inefficient are being eliminated."

• **Risk and Reward**—In Romney's idea, a proper economic system provides for both births and deaths:

"Our economic system is premised on two fundamental ideas: economic rewards are based on economic risk, and we have stimulated economic growth by rewarding people who have excelled."

III. Rebuttal by Big Three

No one has ever induced officials of General Motors—or of Ford or Chrysler for that matter—to admit that there isn't enough competition in the auto industry. Members of the Kefauver committee tried in various ways.

Why, committee members wanted to know, are prices so similar if competition is so keen? Couldn't a competitive advantage be gained by one company's lowering prices? In response, company representatives one by one denied that they have any knowledge of how the others set prices. Each insisted that his prices are set where he thinks the competition will be priced and that this is a competitive advantage, because his cars are better than the competition but cost little if any more.

• **GM as Touchstone**—Implicit in the questions and responses was that General Motors, presumed to be the industry's most efficient company, is watched most carefully as a guide to prices. "I do not think," says Yntema, "that General Motors has ever abused the power that it has by virtue of its very low costs and the high degree of efficiency it has achieved. . . . I think that General Motors has done a great

service to this country. I mean, I give the devil his due."

Still, with all this size, efficiency, and drive, General Motors' share of the market slipped last year, and even in its best year, it rose only a little over 50%. If GM is as efficient as all that, why hasn't GM soared far over 50% in years when one of its principal competitors lost position?

Thoughtful people in Detroit speculate on two allied reasons. One is that GM, being so big, has so much at stake that it already has lost some inventiveness and daring—and suffers a bit from inwardness and a philosophy of repeating successful tactics of the past. Linked to this theory is another: that Ford and Chrysler, being still "hungry," are resourceful enough to pick up part of the sales that otherwise could be expected to fall naturally into GM's lap. And Washington adds a third reason: For fear of antitrust action, GM will never drive hard to greatly exceed 50%.

IV. Prospects for Action

George Romney is frank in confessing that he doesn't think anything will come immediately from his divestiture proposal; neither does Washington. Romney chose the Kefauver hearings as a forum for his proposal because he thought it would get wide attention and possibly start a new line of thinking in government and industry circles.

And apparently it already has. A few days after Romney appeared before the committee, an executive of a Big Three company was scoffing at the idea at a social gathering. He was interrupted by a man who said, "I don't agree with you; it might not be a bad idea." The man who interrupted is a member of General Motors' board of directors.

• **Virtues of Plan**—There are several aspects of Romney's proposal that could be appealing to someone whose main source of income was a large block of GM stock. Suppose by turning in some of his GM shares he could get shares in a new "Chevrolet Motors Corp." and pay only capital gains on the transaction, if and when he sold his Chevrolet stock. He would gain from diversification, and he might have in his portfolio a new growth stock that would appreciate rather than pay highly taxed dividends.

GM happens to have on its board several persons who own a very large number of shares. Someday these shareholders might begin to ponder some form of spinoff as suggested by Romney, even if the government didn't make it mandatory.

• **Brass Opposed**—However, GM's present management, on the record of its public statements, has little sympathy with any proposal that any part of GM should, or could, be broken off. Curtice told the Kefauver committee that the "disintegration of the company would cause a worsening of the divisions because of the loss of the central staff services" in law, finance, industrial relations, engineering, and the like.

Romney's ideas are given some pertinency by the fact that GM's management and the complexion of its board is about to change. This August, Pres. Harlow Curtice attains retirement age. He does not have to retire this year, and there is no indication whether he will or not. But it is reasonable to assume that his retirement is not too many years off. When the du Pont divestiture of GM stock, ordered by the Supreme Court last summer, is accomplished, it probably will bring two or three new faces to the GM board. Together with a new GM management, they might have a different philosophy for General Motors' future course.

• **Favorable Factors**—Any chance of legislation embodying Romney's proposals ever popping up in Congress is "iffy" at best. But it has two things on its side:

• The auto industry obviously is in trouble—temporary or permanent, deep or shallow, no one can say—and there's an undercurrent of public resentment of Detroit on a variety of matters.

• Romney himself. He is not a professional antitrust crusader of the kind to which Washington has become accustomed. What makes his conduct so unusual and theoretically gives it more weight, however, is that he is a very big businessman who, temporarily at least, is also a successful competitor of Ford and General Motors.

V. What Next for Kefauver?

Between hearings last week, Kefauver went onto the Senate floor to present a budget request to finance his subcommittee for the coming year. He ticked off briefly a host of topics for hearings or investigation.

After winding up the current phase of the "administered price" hearings in autos, Kefauver said similar hearings will be held in the meat, farm machinery, milk, baking, and aluminum industries and perhaps the roofing industry as well.

In addition, Kefauver said he plans to look into:

• The trend toward conglomerate mergers—where one company acquires another in an unrelated field—and what, if anything, can be done about it.

• The problem raised by companies joining together in joint ventures for certain enterprises.

• Proposals for pre-merger notification.

• Activities of American companies abroad.

Designers

The original, radical design is dead, but modified versions have caught on. Women's wear industries are moving fast to cash in.

"The chemise is dead—long live the chemise."

Thus the fashion world sums up the 1958 "new look." And it's more than a play on words, for the fashion world sees decisive differences between one chemise style and another.

Last fall, the Paris collections crashed U.S. headlines (BW—Oct.26'57,p46) with a silhouette that caused many a male heart to quail, many a woman to look nervously at her wardrobe and her mirror. Every industry involved in the business of decking the female form asked the question: Was the chemise the shape of things to come?

• **The Sibylline Answer**—Now, eagerly or reluctantly, most fashion prophets say it is—with one important qualification. The original bag, sack, or chemise is practically dead, but its spirit lives on. "It was a necessary movement of liberation," says Jacques Heim, Paris designer. "It served its purpose, and now it's through."

Esther Lyman of Harper's Bazaar explains that the original design is by now a minor variation on the new silhouette. However, the "loose look" or "easy look"—fashion people, not BUSINESS WEEK apply these terms—has definitely displaced the form-fitting sheath. The artfully shapeless chemise has acquired a shape, one that may be as important to the fashion trade and as lasting in its effect as Dior's 1947 New Look.

• **Semantics Lesson**—There's room for argument about defining this shape. To the purist, the chemise means a shirtlike garment that is, in truth, a sack; its lines fall uncompromisingly straight from shoulder to hem. More generally, though, chemise is a catchall word for a wide variety of designs that agree only in releasing women from the sheath's tight hug.

It's the "relaxed dress that just skims the body," says Ada Shalit, buyer for Macy's-New York Little Shop. Some versions are shaped in front, hang loose in back; some taper from shoulders to hem; some are partially belted. Most pass lightly over the waistline, then cut closer to the hips.

• **Vested Interests**—The impact of such a fashion change extends beyond the garment maker and merchandiser.

To the textile houses, the trend to draped lines calls for softer fabrics and the simplicity of styling demands "in-

Say Chemise Is Taking Shape

terest" in texture or pattern. The same simplicity opens the doors to the maker of accessories.

Think, too, what the bulbous silhouette might mean to the foundation business. The first word—that the chemise would do away with the need for foundation garments—struck this industry with dismay. But the industry has rallied to what it calls a challenge and an opportunity.

For the past six months, Warner Bros. Co. has put on a promotion campaign on the idea that the looser clothes demand a better figure, better molded. Maiden Form Brassiere Co., No. 1 in its field, is promoting rounded brassieres. "You have to have a shape underneath because there's no shape outside," says a spokesman.

Lily of France, Inc., says girdles tend to be more relaxed at the waist, firmer over the hips. And the old pointed bra is out, because it projects the dress so far ahead of the rest of the body that the dress does, indeed, hang like a bag.

The lingerie makers, too, want to get in on any refurnishing of wardrobes. They have come out with shorter, narrower slips. But they aren't dropping their main line of slips for the fitted waist, flared skirt.

• **No Revolution**—The fact is, of course, that no one in the fashion trade expects the new silhouette to drive older styles out of existence. The great strength of the chemise look is, as fashion expert Tobe said last fall, its appeal to the young, to the avant garde.

Strangely for any new style, though, the chemise had its first success in the popular-priced lines rather than in the most expensive salons. The theory has always been that high fashion trickles down, in diluted form, to the mass market. In the low-priced field, the chemise made the first big gains, and it is now trickling up.

• **A Long Look?**—Most stores hesitate to predict a future for the chemise beyond next fall. However, Sears, Roebuck & Co. and Macy's Little Shop say confidently that it will be the important look for at least five years. Ohrbach's, New York, calls the style "sensational"; it has brought back what may be the country's biggest Paris collection this winter.

Bloomingdale's department store in New York looks for heavy sales through fall and feels the chemise, in its popular-priced versions, is more solidly entrenched than ever. Junior sizes get the biggest play, but Bloomingdale's reports success with the larger sizes, too, and with every price range.

The loose look is taking over other parts of the country besides New York.

SHEATH meets chemise at Bloomingdale's New York department store, and soon . . .

CHEMISE wins another buyer. Store says style sells best in popular-priced lines.

Los Angeles reports big sales. Milwaukee retailers say they can't keep the chemise in stock, though other merchandise is virtually at a standstill.

• **Divided Allegiance**—In the higher realms of fashion, reception of the sack is mixed. Andrew Goodman of Bergdorf, Goodman has gone on record as saying he prefers women in fitted clothes. But his shop carries versions of the chemise that it describes as "the skillful fitting of an unfitted look." Saks Fifth Avenue buys limited numbers of the chemise, says it is selling "moderately well." Other Fifth Avenue shops carry it, but few are going all-out for it.

There are true believers, especially among the designers, at the top of the price scale. Traina-Norell Corp., design house, avows faith not in the sack but in the loose look. Hattie Carnegie, Inc., says the luxury market "buys the chemise the way we make it." Designer Adele Simpson, Inc., is enthusiastic, and Claire McCardell says buyers have given up their resistance of last fall. "Now we have to hold them back from going too far the other way," this designer says.

• **Fashion Cycle**—The style change comes fortuitously at a time when business is none too good. But that doesn't mean Paris foresaw need for it. Paris recognizes only two main impulses behind style changes: (1) external influences—what's in the news, whatever art is fashionable—and (2) the steady cycle of extreme to moderation and back to extreme.

This cycle can get a violent shove when a daring designer crashes from one extreme to the other, as Dior did with his ankle-length New Look at a time of knee-length dresses. Such a revolution, fashion people admit, is more likely to come when business is dull. Its great virtue, if it catches on, is that it outmodes existing clothes.

The chemise hasn't followed quite so dramatic a course. The wasp waist of a few years ago had already loosened gradually before designers hit the extreme—the sack—last fall, and moderation has begun again.

Battle Over Reactor Subsidy

Next week's hearings will focus on the pros and cons of government support of nuclear power development. Democrats challenge AEC's "partnership" policy.

The hot controversy over a government subsidy for nuclear power development will come to a head in Washington next week, when the Joint Committee on Atomic Energy opens its annual hearings on the development, growth, and state of the atomic energy industry.

A determined corps of Congressional critics says the breakthrough to competitive nuclear power will never come until more large-scale plants are built than are now in the offing, that on the evidence private enterprise simply can't or won't take the risks inherent in the high cost of big reactors. They accuse Lewis L. Strauss, chairman of the Atomic Energy Commission, of a dangerous "complacency" that could cost the U. S. its world leadership in atomic energy development.

The Democratic critics want government construction of large-scale atomic power reactors.

• **Defense**—Strauss, who will probably be the first witness at the hearings, feels that the record amply vindicates AEC's "partnership" policy with private enterprise. Under this approach, the commission mostly limits its contribution to research and development—including construction of small experimental reactors—while private enterprise is encouraged to carry the ball from there.

On the surface, the atomic industry seems to be uncommonly lusty for an infant less than four years old:

• Eight experimental civilian power reactors—generating about 103,000 kw.—are in operation already, including one financed entirely with private capital. Nuclear power is feeding into the lines of two private power companies.

• Construction is under way on four full-scale power reactors in which private enterprise is the sole or primary investor. By 1960, more than 500,000 electrical kilowatts of nuclear power station capacity is expected in the U. S., and this figure may jump to 6-million kw. by 1968.

• Electrical power produced in atomic reactors may be competitive with conventional power in certain parts of the U. S. within 10 years—maybe five.

• Equipment manufacturers, according to some estimates, can look forward to $4-billion in sales of equipment and components for reactors in the U. S. and abroad over the next 10 years.

• **Opponents**—The private power industry, wanting no atomic TVAs, has opposed federal development of atomic power from the first. So has the coal industry, which argues that there is plenty of cheap coal available—as well as oil and natural gas—with which to fuel electric steam plants for generations to come.

Private power fears are not allayed by the fact that the most vigorous proponents of federal-developed atomic power are such public power advocates as Sen. Albert Gore, who proposes a $400-million reactor construction program to start.

• **New Ally**—This year, however, Congressional critics appear to have gained an ally. The equipment makers—companies that actually build reactors or their components—have gradually swung from an anti-subsidy policy to reluctant conviction that more government help is needed.

Nucleonics, a McGraw-Hill publication, found in a survey that a majority of equipment companies now agree that AEC should "participate" not only in nuclear fuel costs, but in the cost of constructing nuclear power plants.

The joint committee uncovered the same sentiment in a closed-door parley with industry representatives last November.

It must be noted, however, that the equipment people do not necessarily endorse the idea of commercial-sized, government-owned reactors. In both the Nucleonics' poll and the closed-door session with the joint committee, industry spokesmen proposed government subsidy of privately owned nuclear plants. This could take the form of government payment of the difference between the costs of conventional power plants and nuclear plants, or a subsidy based on a fixed payment for kilowatts produced.

• **Hard-Hit**—The reason for the switch is clear enough. High, unpredictable costs (BW—Dec.7'57,p32) and a feeling that there is no dynamic, imaginative government program are fast chilling the industry's enthusiasm for the atomic business as it is now conducted. Industry already has warned the joint committee that unless something is done this year, more of the smaller companies will go out of business, and even the large ones may have to let some of their technicians go.

Against this, joint committee sources believe it would take a really gigantic government construction program—at least $100-million per year—to make much of a dent in the equipment companies' problems.

• **Compromise?**—AEC takes the view that any additional support for the reactor program should come in the realm of government-sponsored research and development instead of reactor construction.

Spokesmen for the joint committee insist this won't be enough to satisfy Congress.

There are reports that some AEC commissioners are coming around to the view that more direct federal support is needed for the reactor program. But there are no signs that Strauss will budge.

Both sides talk hopefully of a compromise—without being specific about what it might be.

Rep. Carl Durham (D-N. C.), chairman of the joint committee, wrote Strauss last November that the national interest demands cooperation between the committee and AEC in "clarifying our program objectives and in developing a program and methods of carrying them out."

• **Policy**—Congressional sources say the joint committee and AEC have tentatively agreed on a fundamental policy: Whether or not a domestic need exists, atomic development must go forward to preserve our world leadership. AEC is also described as ready to set a goal of achieving economic nuclear power abroad in five years, and within the U. S. in 10 years.

Joint committee sources warn that negotiations are still under way—but if AEC does make these concessions, it then becomes very likely that Congress will vote a stepped-up atomic program. Some form of increased government support is virtually a certainty. Agreeing on what form government help should take will be more difficult.

One possibility is more emphasis on U. S. development of reactors abroad, where they are needed more. This would satisfy cold war requirements, and sidestep much of the domestic opposition to a subsidized program. How much this would help the equipment makers is something else. There's a growing belief that, while such a program might be of short-range benefit, the U. S. in the long run will export atomic knowhow, but little actual hardware.

• **Breather for AEC**—Meanwhile, AEC is hoping that the new emphasis on outer space will take some of the heat off the reactor controversy. Both AEC and the committee would like to see the commission given responsibility for space projects (page 33).

Certainly Congress, if forced to choose between huge expenditures for civilian power reactors or for military reactors for the plunge into outer space, is likely to favor the latter.

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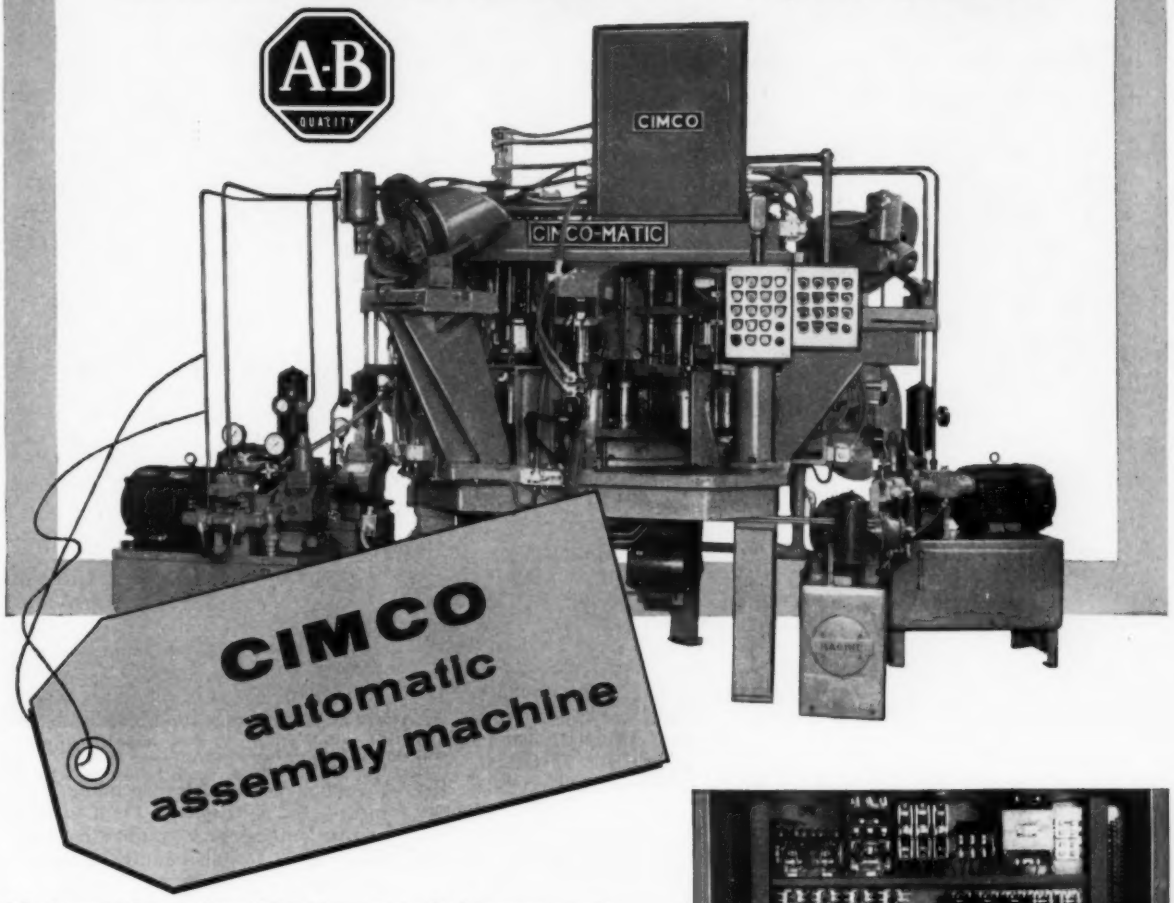

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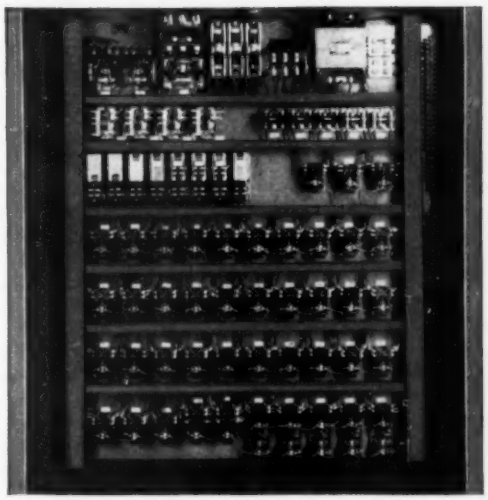

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State Spending Is Still Rising

● State budgets submitted this year continue the trend to higher spending, though the pace is slackening.

● The recession, however, is affecting tax collections in some states already, raising prospects of deficits.

● Despite this, the pressures to spend more—on roads, schools, and other projects—are increasing.

Spending by state governments will continue to move upward this year, despite the general business downturn.

In the minority of states where governors are submitting budgets this year—even-numbered years are off-years for state legislatures—the trend is toward continuing the increases that have seen state expenditures soar from $15-billion in 1950 to an estimated $25-billion.

• **Change of Pace**—But there is a hint of a difference. In a number of states, the year-to-year increases are smaller.

It's questionable how dependable the projections are. It's always possible, particularly in states where executive and legislative branches are controlled by opposite parties, for a governor to produce an unrealistic budget so that the blame for changing it would rest on the legislature.

I. Lagging Collections

But if you want to assume that the budgets are sincerely calculated, it is likely that the prudence manifested in smaller increases reflects the fact that the recession is putting a dent in tax collections. A number of states report that collections are below estimates, but still ahead of last year. Federal aid to states is up, however.

Two states that seem to be in worse shape than the others are Michigan and Delaware. Both are running up deficits in the current fiscal year. Delaware is having to resort to short-term borrowing, and Michigan has been forced to hold up payments to school districts.

The relevance of figures showing how collections compare with estimates, however, is questionable. You have to be sure that the estimates are reliable. Instead of dealing with one set of estimates as in the case of Pres. Eisenhower's budget, you're dealing with many.

• **Variable Sensitivity**—So far as collections themselves are concerned, some are more sensitive to recession.

About one-third of the states rely heavily on general sales taxes. Where business is off, these states might feel the effects almost immediately, since collections are made frequently.

On the other hand, states that depend on the personal income tax—with the exception of the 10 or more that withhold taxes—may not feel the fluctuations in the economy until the following fiscal year.

More sensitive indices are the severance taxes. Drops in mining disturb states such as Arizona and Montana, and Texas reports that higher oil imports may result in new state taxes.

In Michigan, where Democratic Gov. G. Mennen Williams and the Republican legislature are at odds, the governor said the recession might produce a larger deficit than expected—something around $35-million. But for next year's general fund alone, he's recommending appropriations of $361-million, which would be 6% above the current year, and $5-million short of revenues.

• **Delaware's Troubles**—In Delaware, Gov. J. Caleb Boggs had to call a special session to rescind appropriations already authorized when revenues dropped below estimates. The state had to make a short-term loan for $7-million.

At the session in December, the legislature imposed a 5% corporate income tax, increased personal income and racing taxes. And the state borrowed another $5-million. The state's deficit was expected to hit $27-million by June 30, 1959, but estimates are that the new taxes would raise $21-million—nearly one-third of the budget.

Now the Delaware legislature is sitting on the governor's proposals for making up the difference: scaling down the previously approved appropriations for fiscal 1959 by $6-million, making counties pick up 25% of the cost of school operation and maintenance, now financed entirely by the state.

Florida was hoping that the tourist season would bring tax collections up to estimates. But with the severe winter, there's a good chance of a deficit and a cutback in state construction projects.

II. Spending Pressures

A number of pressures are responsible for the financial squeeze on the states.

The lure of the federal highway act is too sweet for them to ignore, but they find themselves scratching to come up with the 10% matching funds.

• **Educational Outlays**—The financial strains on local communities and the low education standards in a number of areas are forcing the states to provide more help for the operation and construction of public schools.

The same goes, of course, for universities and colleges, which are the states' own pets. Florida wants to build a new campus at Tampa, but the prospect of a deficit may slow down the construction schedule. Gov. Williams of Michigan proposes to establish an Institute of Science and Technology at the University of Michigan.

• **Fight on Mental Illness**—A number of states continue to provide sizable chunks of revenue for operational and capital expenses in the fight on mental illness. Governors take great pride in the fact that the number of patients has declined in their states.

Expenses in several states have increased because of wage boosts to state employees and reduction of the work week to 40 hours. Other states are postponing such action to hold expenses down, even eliminating jobs.

What will happen to spending if unemployment continues to rise is something else again. A few states are studying the possibilities of building up a shelf of public works. They are not sure, however, whether such outlays would be felt soon enough to be beneficial or whether they would employ enough people.

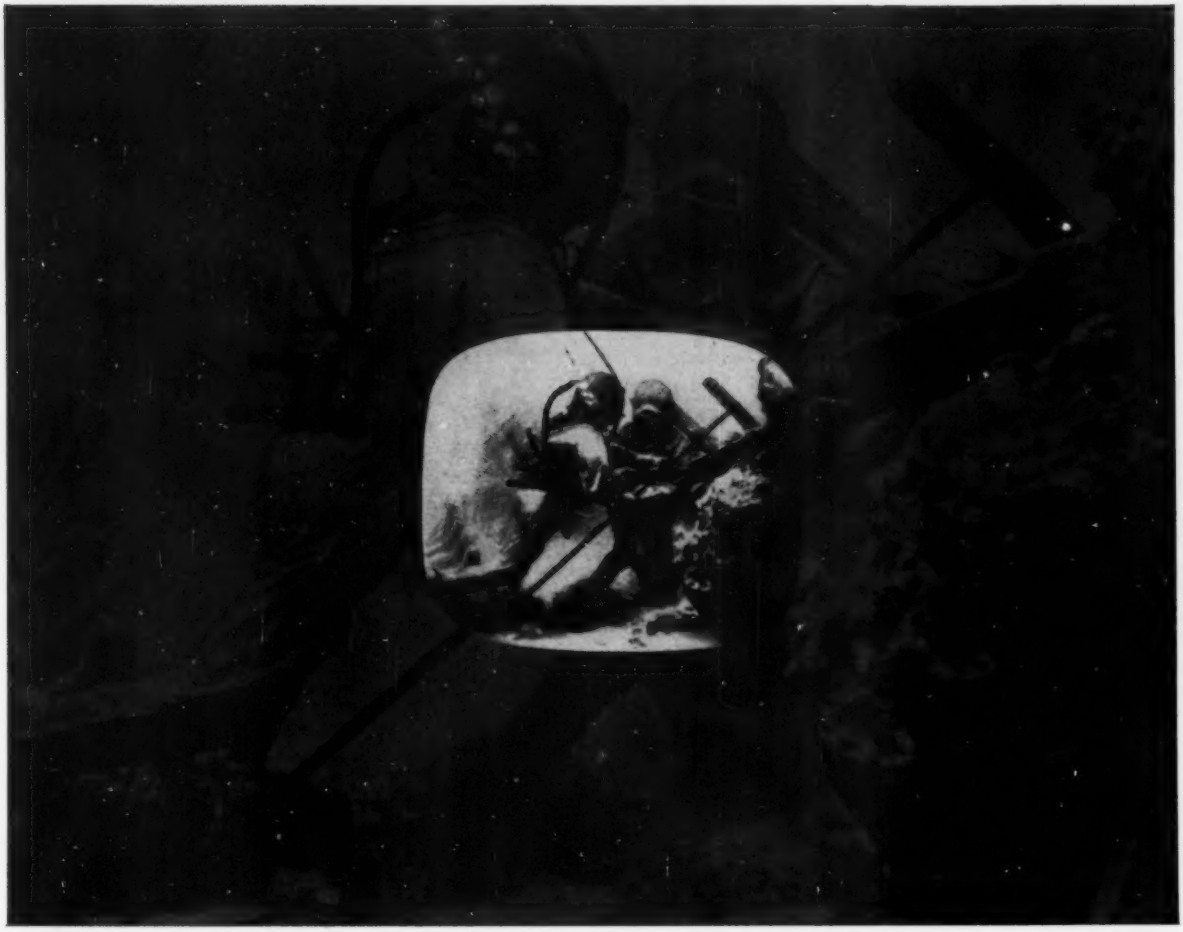
Adding to the states' spending pressures is the agitation for them to take on new burdens such as urban renewal, which is now handled jointly by federal and local governments.

III. Uncertain Outlook

Backed to the wall by forces to spend more, the states are casting around for ways to increase their tax intake.

In 1955, a record volume of new tax legislation raised collections substantially in fiscal 1956. Last year, there were fewer instances of new or higher taxes. And this year, an off-year, there will be fewer still.

• **Business-Labor Clashes**—In the intensive competition for new industry, the states have become extremely wary of tax schedules that would handicap them. Where the pressure of organized labor is particularly strong, such as in New Jersey, this has stimulated a bitter conflict between advocates of taxes on business and proponents of broader-based taxes on consumers. The result often has been an impasse, with the state treasury caught in the middle.



Brighter picture, greater contrast. Even this dimly illuminated underwater scene "gains" depth and detail when pictured on monitor (inset) of super-sensitive new TV camera made with nickel-containing metal shield.

How nickel sharpens the "eye" of the military's new underwater TV camera

At the bottom of the ocean, it is hard enough to see with your naked eye.

For the "eye" of a TV camera–the image orthicon – it was out of the question . . . until Admiral Corporation put its designers to work on an extra sensitive instrument for the Armed Forces.

They worked out a special system of circuits that "magnify" the light the camera receives. But stray magnetic fields set up by these circuits wandered, interfering with the camera's operation.

To overcome this interference, Admiral's engineers built a shield of a special nickel alloy called MuMetal* around the image orthicon. This alloy, (77% nickel), possesses high magnetic permeability. In effect, it provides a magnetic path-of-least-resistance which detours these stray fields away from vital parts of the equipment.

The result is a TV camera that can "see" as much by the flicker of a match as a man with 20/20 vision sees by the light of a 150-watt bulb!

And because the camera must be able to operate under water, it has nickel-plated hardware to provide corrosion resistance. And nickel-containing stainless steel hardware where mechanical strength is needed.

Do you have a metal problem? One that involves magnetism . . . shielding . . . corrosion . . . high or low temperatures . . . fatigue or some other complicating factor? Talk it over with us. We – and nickel – may be able to offer constructive help.

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In Business

• • •

Pilot Plant Extracts Oil From Shale Cheaper Than Regular U.S. Production

Union Oil Co. of California last week blandly informed the industry that it can produce oil from shale more cheaply than the regular domestic production cost for petroleum.

Research V.-P. Fred L. Hartley told the annual Western Mining Conference that Union had finally knocked down retorting costs for shale oil at a pilot plant in Grand Valley, Colo., to the original target of $1 per bbl. If you take the U.S. Bureau of Mines cost figures for actual mining of the shale, **that works out to a production cost of $2 per bbl., which compares favorably with domestic costs.**

The news isn't quite so sensational as it might seem. For one thing, shale oil is comparable only to very low-grade crude petroleum, and is so viscous that it has to be partially refined before it will even flow through a pipeline. On top of that, there isn't enough water in western Colorado, where the right type of shale lies, to do more than this preliminary refining. So, pipelines would have to be laid to carry the oil to refineries in the Midwest or the Pacific Coast, adding another heavy initial cost. All in all, it's estimated that it would cost upwards of $300-million to set up a 50,000-bbl.-per-day operation, which is considered the economic minimum.

• • •

Curtiss-Wright Says Nothing As Three High Aides Step Down

There's a sizable hole in top management at Curtiss-Wright Corp. this week, with three unexplained resignations.

Departing—and still without heirs apparent—are Wilton G. Lundquist, C-W vice-president of engineering, T. C. Coyne, v.-p. of planning and engineering, and Frank W. Mencik, v.-p. of manufacturing for the Wright Aeronautical Div. All three said they were leaving for personal reasons and denied that there was any connection in their moves.

The company said nothing at all.

• • •

TV Gets Paramount's Pre-1948 Films; Last Big Library Brings $50-Million

The last big pre-1948 backlog of feature motion pictures has been sold to TV. Paramount Pictures Corp., the lone hold-out, last week sold its 750-film backlog to Management Corp. of America for $50-million, the largest price ever paid for a film package, according to Paramount Pres. Barney Balaban. Management Corp. is a subsidiary of giant Music Corp. of America, talent agency with extensive TV film production and distribution interests.

The sale comes as theater owners, worried about the effect that movies on TV are having on theater box office and having lost their battle to keep pre-1948 movies off TV screens, are lining up to prevent sales of important post-1948 libraries. Loew's Pres. Joseph R. Vogel has said his company will not sell its post-1948 MGM pictures to TV. In discussing the Paramount sale, Balaban wired to Paramount divisions, that the company "was not unaware" of the effects previous sales to TV have had on box office. "I do not anticipate the sale of our post-TV library for free-TV in the foreseeable future. My sincere hope is that no other producer or distributor will dispose of post-1948 features for free-TV."

The terms of the Paramount-MCA sale give Paramount $35-million, with 30% in cash and the balance guaranteed by the purchaser. Paramount will receive an additional $15-million out of the gross receipts MCA derives.

• • •

Not Even Greyhound Loves Commuters; Bus Company Sells Its Detroit Line

Greyhound Corp. doesn't seem to like commuters any better than railroads do. It is selling Central Greyhound, Inc., which has served suburban Detroit for 25 years, to American Transit Corp. of St. Louis.

The deal is contingent on approval by the Michigan PSC, and must wait till American Transit sets up a new operating company.

Greyhound, which fancies itself primarily as an intercity operator, still owns one commuter service in the San Francisco area. But it has indicated willingness to sell it at what it calls a "nominal" price. So far, there are no takers.

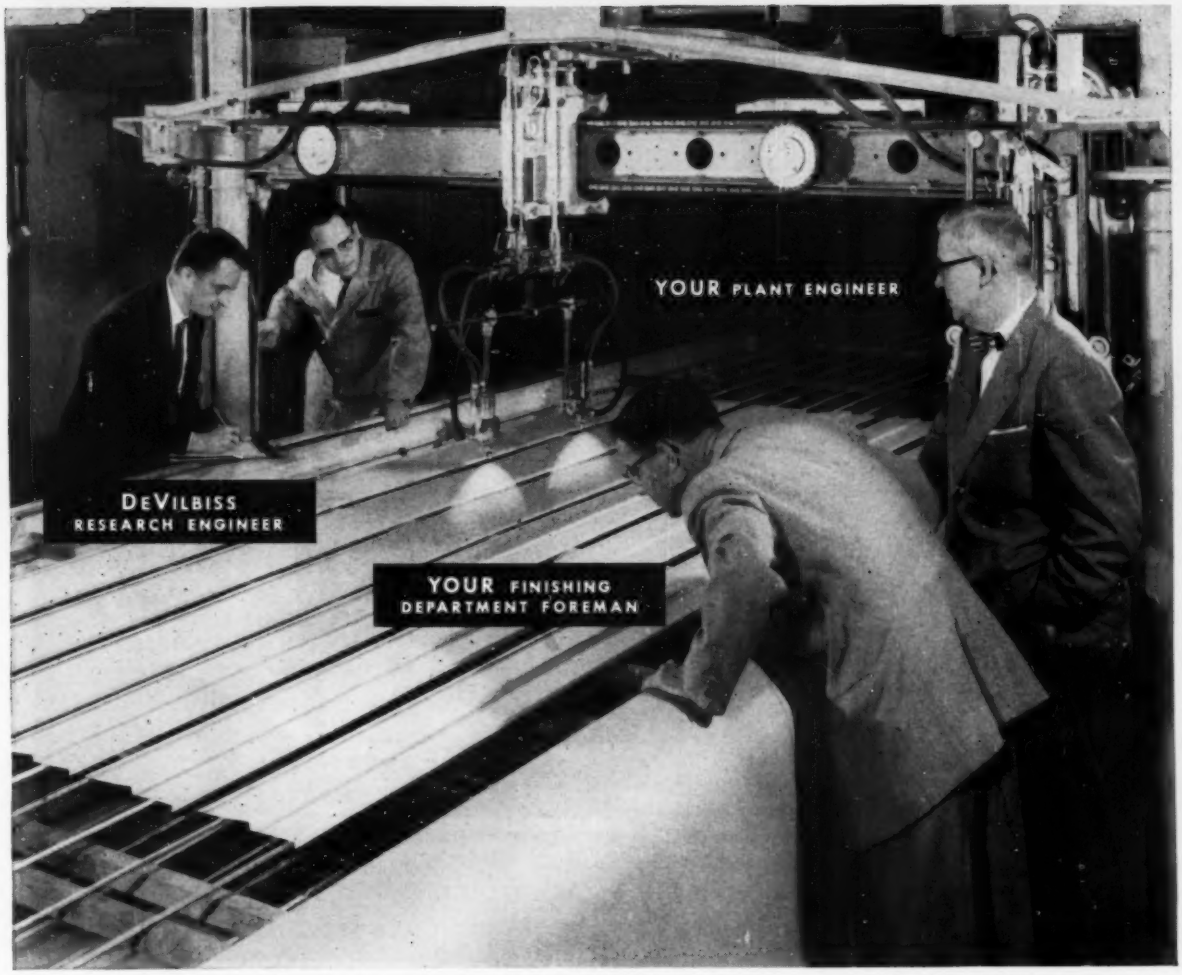
• • •

Business Briefs

Humble Oil & Refining Co. and Humble Pipe Line Co. say they have found a way **to "alleviate a surplus of personnel** brought about by current business trends." Eligible employees more than 54 years old may retire ahead of schedule; Humble will make up part of the reduced allowance.

At midweek, automobiles joined the many industries reporting a nosedive in fourth-quarter earnings (page 55). **Ford Motor Co.**, though it showed a gain for the whole year as predicted, was down 41% in the last three months compared with the year-before period.

The smoldering battle at **Penn-Texas Corp.** is about to heat up again. Informed sources suggest that unless Leopold Silberstein resigns the presidency within two weeks another full-scale proxy fight will be started, aimed at unseating him at the annual meeting this spring.



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Board of Directors hears how Liberty helps them save money 6 ways

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Substantial reduction of compensation insurance premiums: *a warehouse employing 150 people saved $7,921 the first 6 months; the medical program cost was $3,000.* Substantial reduction of labor turnover: *an employer of 200 reduced turnover 46% in 2 years.* Great decrease in absenteeism: *a manufacturer employing 600 cut down absenteeism by 70% in 6 years.* Reduction of group insurance losses: *two plants reduced them 26% and 30% respectively.*

Still another benefit companies have experienced is a rise in employee morale (*put your own value on it*). And they have found that a healthier work force increases production (*and profits*). So there you have 6 hard-cash gains from an effective in-plant medical program. If you're interested, ask Liberty.

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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
FEB. 15, 1958

On business prospects, Pres. Eisenhower has put himself on the limb.

His forecast is for a March improvement. It's well hedged. But, politically, Eisenhower will be embarrassed if two things don't happen:

More jobs will be available, so the President says. In effect, this means that the total of jobless people won't rise much above 5-million. And by the end of March, the figure is supposed to shrink.

The business slide will halt, so the President's appraisal goes. There is no hard prediction of an upturn next month. The assurance is that developments "should mark the beginning of the end of the downturn."

What's behind this White House performance?

Frankly, Washington is worried. The gamble up to now has been that the business slide will reverse itself by midyear. That was the figuring when Eisenhower sent his Big-Three messages to Congress in January. It's obvious that the effort now is to restore business confidence via the old Washington jaw-bone technique.

What if things don't look better next month? Eisenhower hasn't been specific about this. His assurance is that "if other measures are needed . . . they will be proposed—and in time."

The implications are pretty clear.

Efforts to keep the budget near balance will be abandoned. Spending is the classic Washington answer for business trouble. The Administration has many spending plans on the shelf and will trot them out. The $2-billion post office building program is an example. But a word of caution. The program will be spread over several years, under the lease-purchase plan. As a recession panacea, it doesn't amount to much (page 32).

A tax cut will have much more effect. Eisenhower didn't mention it in this week's statement of reassurance. But it is covered in the reference to "other measures." You might see some novel schemes. One idea is to just stop tax withholding from pay checks for one, two, or three months. The effect would be a quick boost in spendable consumer income.

Congress won't wait for Eisenhower to make up his mind.

That's where politics will rule. The Democrats see this "Eisenhower recession" as an opportunity for a real issue in the fall elections—an issue that has wide popular appeal. The disposition in the party is to go ahead now, take the leadership, on relief measures—spending, lending, and taxes. They aren't sure at this time of just what if anything might be necessary to turn the economy up. But they will have everything to gain and nothing to lose if next summer Eisenhower is put in the position of threatening to veto bills that have political appeal.

Support for extra public works spending is on the rise. You see this in bills introduced in the House and Senate. Congressmen who only last year were impressed with their economy mail now are turning around. **Bills to up federal aid are getting more attention.** There's a growing interest in such proposals as the Gore-Flood bills, under which the federal government would give local governments 90¢ for every 10¢ they will spend on a wide range of projects—local sanitation to hospitals.

Democrats count on union labor support to help put these bills over.

Easy credit plays a part. The Federal Reserve Board already is moving in this direction, with cuts in the discount rate. That makes it cheaper for member banks to borrow from the Reserve system. But other moves are much in mind, both in Congress and downtown.

Reserve requirements will be cut. This will have the effect of boosting funds that banks have available for loans. The impact is regarded as much more important than discount rate cuts, which merely make it easier for banks to borrow money in order to make loans. It would jump funds.

Homes will be made easier to buy. You recall that only a few years ago, you needed less cash to buy a house than to buy an auto. Pressures now are for a return to this—low cash down, with long pay-off terms.

There's mystery about Eisenhower's business forecast.

The question is "who sold him on this line"—the idea that March will be the turning month. It is well known around Washington that most of the President's advisers are not this optimistic. They have insisted all along that the recession will be both shallow and short-lived. The consensus, however, has been that the upturn will come later in the year. In fact, some competent men place the upturn for next fall.

Men who talked with Eisenhower during the week included: Chmn. William McC. Martin of the Federal Reserve Board. (Martin has been a top inflation fighter and is known to feel that a too quick pump priming might put new fire under prices.) Chmn. Raymond J. Saulnier of the Council of Economic Advisers. (Friends insist he doesn't expect a sensationally quick recovery.) Dr. Gabriel S. Hauge, the President's closest economic consultant. Budget Director Percival Brundage, who only a month ago talked of postponing public works.

Politics are suspected. Republicans have little hope of winning House and Senate control in the fall. But they are worried that they may lose still more seats. Party leaders have been trying to get this idea across to Sherman Adams and others of the White House inner circle. The lack of any program from Eisenhower this week was disappointing to them. But they got some cheer out of the fact that Eisenhower is now committed to act if things don't improve within the next month or two.

—•—

No real investigation of the regulatory agencies is likely.

It's a pet project of House Speaker Rayburn. He sponsored many of the laws that set up such quasi-judicial agencies as the Federal Communications Commission, Federal Power Commission, Securities & Exchange Commission. Rayburn has wanted a check on performance. That's what a House Commerce subcommittee intended to do. But this week, the whole thing blew up with the firing of the subcommittee counsel in the FCC probe.

Here's the hitch: Many members of Congress, both Republicans and Democrats, have asked the agencies for favors—licenses for constituents. It's part of the day-to-day business of Washington and it's proper to a point. The question is on where improper pressure starts, whether applied by regulated industries or lawmakers. The blowup of the FCC inquiry means the whole project will be soft-pedaled until after elections, maybe longer.

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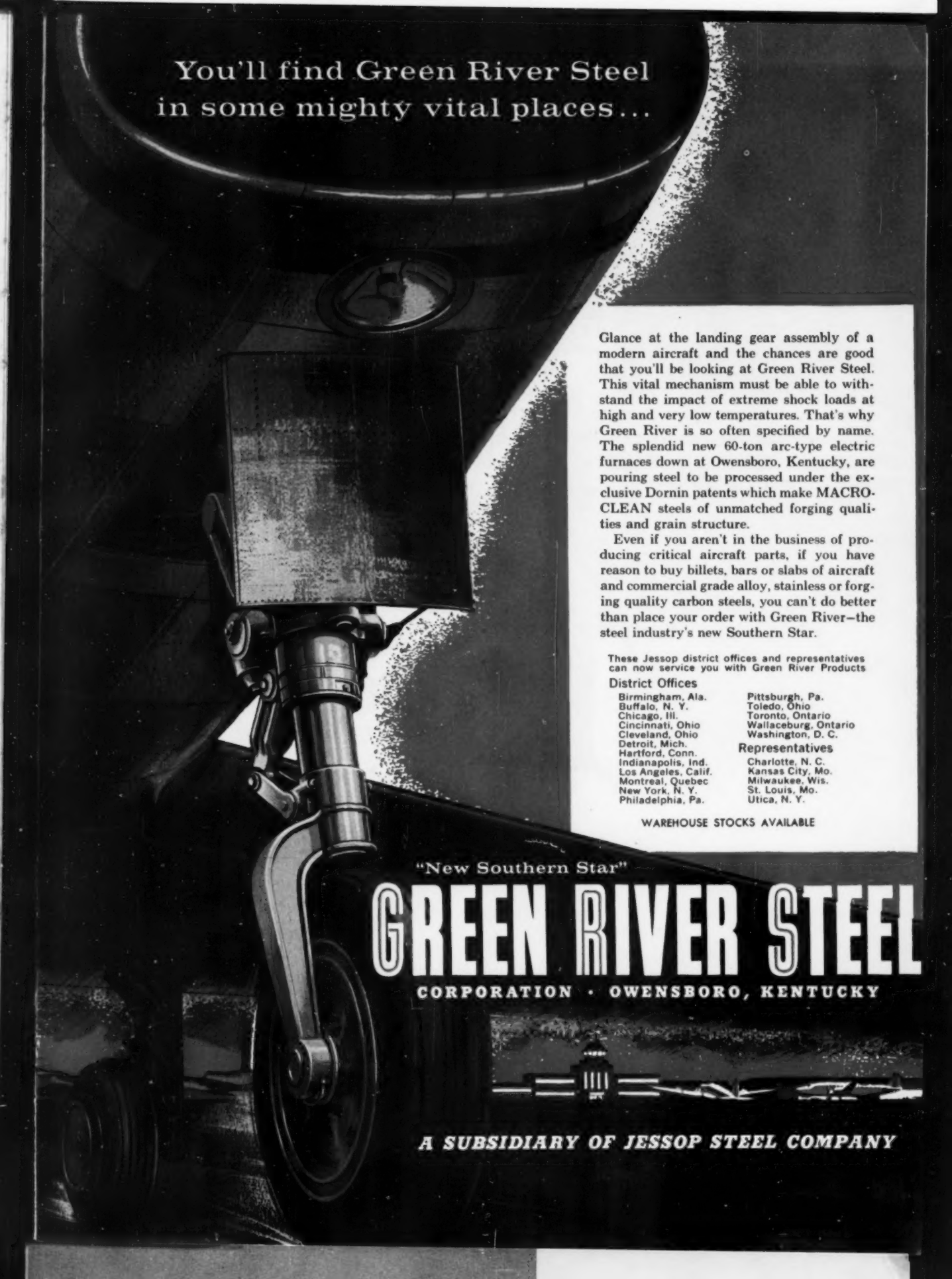

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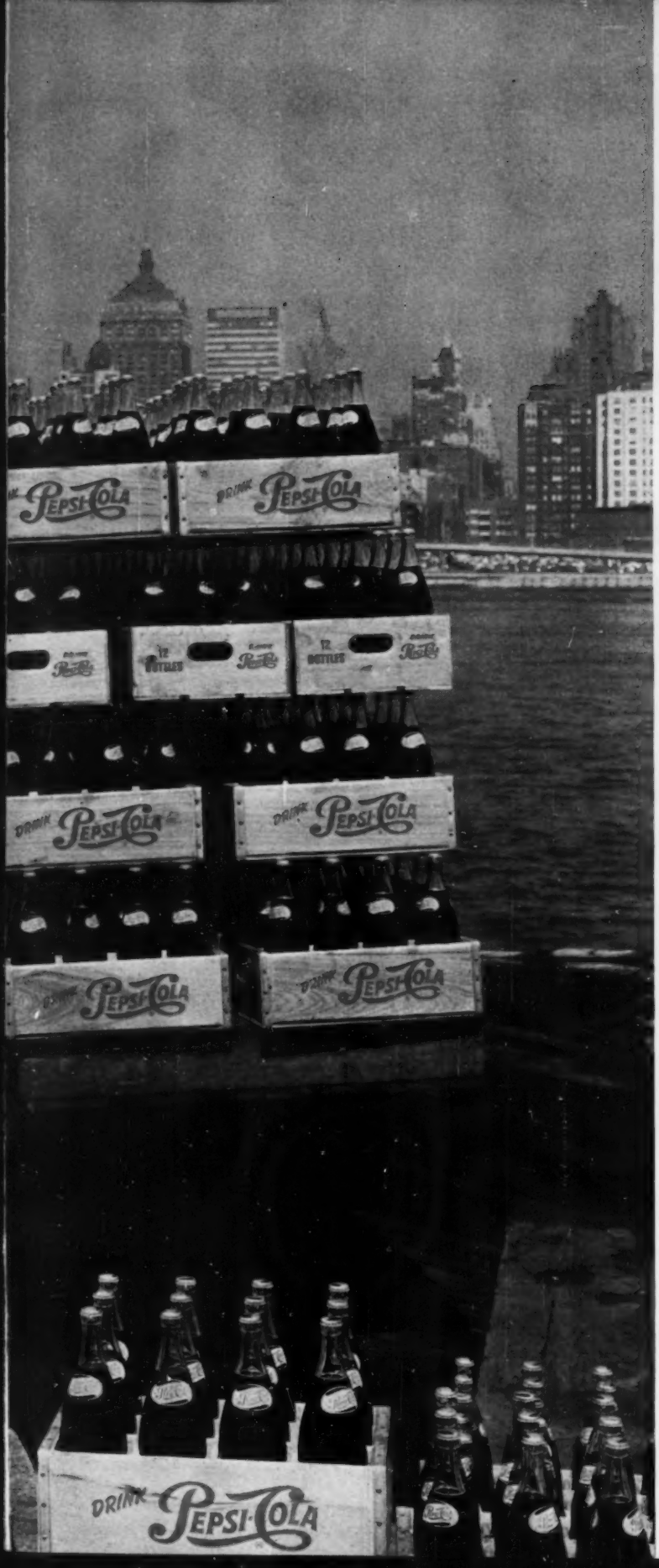

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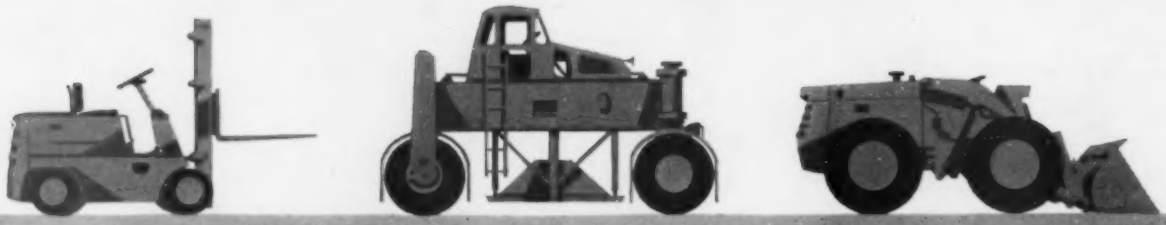
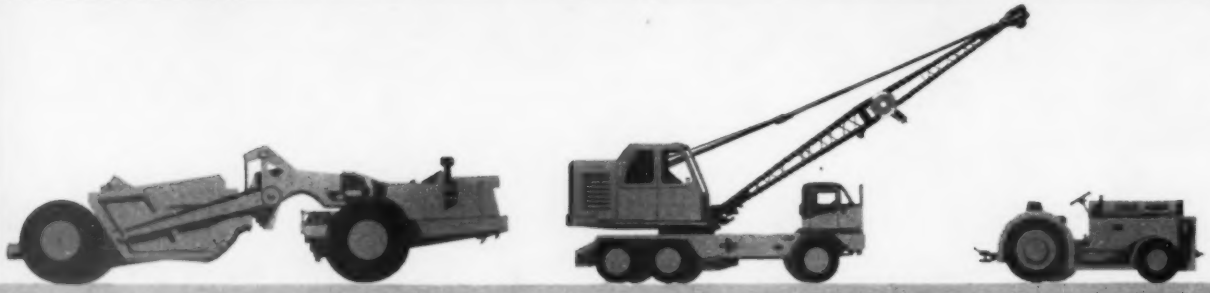


Lift trucks . . . Straddle carriers . . . Tractor Shovels



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Fourth-Quarter Sag in Earnings

Corporate Profits

	Percent Change From 1956			
	Fourth Quarter 1957		Full Year of 1957	
	SALES	NET	SALES	NET
Acme Steel	−31.3%	−70.6%	+10.1%	−14.2%
Allegheny Ludlum Steel	−36.8	−65.3	− 6.8	−23.3
Allied Chemical & Dye	− 5.1	−22.3	+ 2.1	− 7.7
American Can	+ 1.4	−22.0	+ 2.8	− 5.3
American Radiator & S.S.	− 9.7	+31.2	− 8.1	−35.8
American Viscose	−15.3	−81.1	− 5.7	−43.6
Atlantic Refining	− 2.3	−56.1	+ 3.9	−24.4
Atlas Powder	− 2.2	+22.9	+ 4.3	− 1.6
Bethlehem Steel	− 9.8	−23.4	+11.9	+18.3
Carborundum Co.	− 2.6	+22.1	+ 6.0	− 2.0
Caterpillar Tractor	−33.9	−82.7	− 5.3	−28.2
Consolidated Cement	− 8.3	−21.8	+ 1.7	−27.2
Container Corp.	− 5.1	−25.6	− 7.1	−20.0
Continental Oil	—	−48.5	—	− 9.9
Copper Range Co.	−14.2	−96.7	−12.8	−76.4
Crown Zellerbach	− 6.8	−27.4	− 0.4	−24.0
Diamond Gardner Co.	—	—	+ 1.1	−24.8
Douglas Aircraft	−27.7	−63.2	+ 1.5	− 7.6
Hercules Powder	− 1.9	+10.2	+ 4.0	+ 2.3
Ideal Cement	− 1.9	+19.0	+ 0.7	− 3.0
Inland Steel	− 8.9	−10.2	+ 5.5	+11.1
Int'l Business Machines	+22.7	+37.6	+36.2	+29.8
International Harvester	− 5.7	− 5.4	− 6.4	− 8.1
Johns-Manville Corp.	− 8.0	−43.5	− 0.7	−28.9
Kaiser Steel	+ 0.1	−37.8	+ 3.4	− 9.0
Kennecott Copper	−22.7	−47.7	−17.5	−44.7
Koehring Co.	− 5.1	DEF.	+ 7.5	−24.0
Koppers Co.	+ 5.7	− 9.1	+ 6.3	−21.9
Liggett & Myers	− 5.9	+ 2.3	+ 1.0	+ 6.9
Eli Lilly & Co.	+ 3.9	−10.6	+10.1	+ 7.5
Lukens Steel	+ 4.0	−44.2	+24.0	+34.8
Maytag Co.	− 9.7	− 8.4	−12.7	−21.6
Minneapolis-Honeywell Reg.	− 1.1	−12.7	+12.8	− 5.0
Monsanto Chemical	− 3.1	−34.5	+ 4.7	− 3.2
Philip Morris	− 1.0	+ 8.3	+ 5.9	+ 9.4
Muller Brass	−19.9	DEF.	−25.7	−49.6
National Biscuit	+ 0.5	− 8.7	+ 3.4	+ 8.7
National Steel	−19.3	− 33.2	− 3.5	−13.3
Norwich Pharmacal	+14.4	− 8.6	+13.5	+16.8
Oliver Corp.	+ 4.4	−40.6	− 5.7	−68.4
Peabody Coal	—	−17.6	—	+10.3
Chas. Pfizer & Co.	+13.8	+50.5	+16.1	+25.5
Poor & Co.	—	−59.3	—	−20.9
H.K. Porter Co.	− 5.1	−10.7	+ 9.1	−16.4
Rayonier Inc.	− 4.6	−56.6	−14.8	−55.3
Rockwell Mfg.	− 3.6	− 2.0	+ 6.7	+ 2.8
St. Regis Paper	− 0.01	+12.3	− 2.4	−17.2
Sealright-Oswego Falls	+ 5.0	− 1.7	+ 4.5	+ 1.5
G.D. Searle & Co.	+ 4.1	− 0.9	+ 8.6	+ 5.2
Sharon Steel	−33.4	−57.4	−15.8	−41.4
Standard Oil (N.J.)	—	−31.9	+ 9.5	− 1.1
Sun Oil	− 6.8	−48.2	+ 6.1	−21.9
Symington-Gould	—	−69.2	—	−16.6
Struthers Wells	—	−17.6	+ 3.1	+10.4
Thatcher Glass	—	+ 0.9	—	+33.1
Thew Shovel	−42.6	−63.1	−21.3	−52.0
Union Bag-Camp Paper	+ 3.0	−18.3	− 1.4	−15.8
Union Carbide	− 1.1	−24.5	+ 5.3	− 8.5
United States Steel	−13.4	−13.8	+ 5.1	+20.4
Wheeling Steel	−27.1	−40.1	− 3.8	−31.7

In a few cases above fiscal years and final quarters ended Oct. 31 and Nov. 30. Last quarter data also is as actually reported or as indicated.

ECONOMISTS and other professional keepers of the business score have finally found something on which they can agree. To a man, they're convinced that, when all reports are in, 1957 corporate profits after taxes will prove to have fallen far below the $21-billion totals that enabled 1955 and 1956 to share the runner-up spot in the alltime records.

Just how deep the drop will be won't be known for a few more weeks. But in guessing at it, the experts have already lost their happy unanimity: Some say more, and some say less.

• **CEA Opinion**—On the less side is the Council of Economic Advisers, Washington's official scorer, whose early estimate is that pre-tax earnings for the year will end up at around $20.6-billion. On the more side are various experts who note a bit smugly that CEA has guessed too high in the past. This group figures that this time CEA has shot too high by $200-million or even $300-million, and that the real figure will be somewhere in the area of the $20.3-billion that made 1948 the fourth best year on record. To document this case, the group notes that at this time a year ago, CEA was estimating 1956 earnings at 21.5-billion, a fat $500-million higher than proved to be the case (BW—Feb.9'57,p33).

High or low, the guessing provides more amusement than serious economic meat, according to many smart students of business. These experts argue that the over-all figure for 1957 is already water over the dam—and water that was largely swollen by the early months of the year while the boom was still going.

The statistics that really mean something, they argue, are the second-half reports of individual industries and trades, and especially the fourth-quarter reports covering the period of business slowdown.

• **Digging Deeper**—Few companies include fourth-quarter breakdowns in their annual reports, but the student can derive the figures for himself with a little heavy pencil work. How those 1957 figures look for 60 corporations, picked from a diversity of trades, appears in the tabulation; it shows a frequently alarming disparity between full-year and fourth-quarter performances.

Management blames the deteriorating profits on a variety of causes, but the heaviest blame falls into two general categories:

Sales troubles, due to the "downturn in national business." Worried executives specifically list: (1) liquidation of inventory by their customers; (2) slack-

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cned demand for new plant and equipment; (3) cutbacks and cancellation of military orders; (4) the sudden and unexpected refusal of the ultimate consumer to go on buying homes, cars, appliances, and other goods with the gusto to which business had grown accustomed since the war.

Rising costs of operation, which are ascribed to: (1) wage increases; (2) higher freight rates and costs of materials, especially steel; (3) high cost of starting up new production facilities and/or the difficulty of getting them running at profitable levels, due to the drying up of orders. Competitive conditions have become too keen to permit any further boosting of prices to match the rise of costs.

Naturally, the malign effects of the profit squeeze are not felt equally by all individual companies, or by all groups. International Business Machines is a conspicuous non-sufferer. And among the trade groups, the drugs, tobaccos, packaged foods, and a few others are still doing well despite the downtrend.

• **Rails Hurt Worst**—Of the industries that are suffering, none has been hit so hard as the railroads, with their much-publicized woes. But other groups have been hit quite hard, including such mighty bulwarks of the economy as oil, steel, building materials, machinery, paper, and nonferrous metals.

Here's a rundown of what's happening in some of the very important industrial groups:

Autos. The Big Three have not yet issued their 1957 reports. But Wall Street estimates that for the whole year Chrysler's earnings will be well above 1956, with Ford showing a good, if less notable gain, and General Motors holding about even. But the fourth-quarter breakdowns are likely to be much less attractive to stockholders, what with the customers being markedly cool to the 1958 models. That coolness is likely to chill the profits well into 1958, and especially in the first quarter. Passenger car output has been running far below the year-before figures. Thus for the Jan. 1-Feb. 8 stretch, Chrysler production has been 35% below the 1957 weeks, with Ford off 33%, and GM 14%.

Building materials. Profits of this group took a rough bouncing last year, especially in the fourth quarter. Johns-Manville, a trade leader, had 43% less profits in the fourth quarter than in the year-before period, while for the full year its slide was 29%. Like others in the trade, Johns-Manville felt the weight of the cost of facilities not yet in operation, of competition that prevented price rises to match costs, and of decreased sales, especially in the lines that have higher profit margins. For 1958, no dynamic change in the

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You can gain important materials handling, protection and storage advantages by applying Acme Steel Ideas to your operations. Safe, secure packages and shipments result in increased handling speed and labor-materials economies, bringing you important savings and greater customer satisfaction.

***Your Acme Idea Man can help you** . . . his wide experience in product protection and materials handling is at your disposal. He will be glad to detail scores of money and time-saving ideas to you. Call him at your nearest Acme Steel office or write Dept. BGU-28, Acme Steel Company, Chicago 27, Illinois. In Canada, Acme Steel Company of Canada, Ltd., 743 Warden Avenue, Toronto 13, Ontario.

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Common Stock
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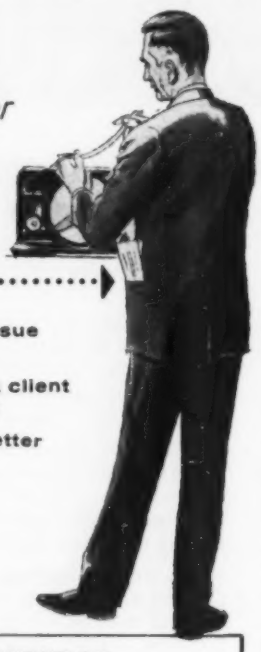
Paine, Webber, Jackson & Curtis — **Smith, Barney & Co.**

This man is a successful broker



WHAT'S IN ..... HIS POCKET?.....

- **an unpublished report on a new stock issue** (because he needs advance information)
- **a set of buy-sell recommendations for a client** (because he senses an important market shift)
- **and the current Kiplinger Washington Letter** (because it gives him continuing perspective on the business outlook)

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trade's earnings trend is anticipated.

Chemicals. Du Pont, the giant in this field, has not yet reported for 1957, but early reports in the group indicate that profits were well below 1956. And prospects look none too bright for the first half of this year, and perhaps even the third quarter. Sales are expected to stick around the 1957 level, or even drop a bit. And rising costs are likely to keep on squeezing the profit margin, with no relief possible from price boosts; heavy costs of starting up new plant will also be a drag.

Electrical equipment. Westinghouse Electric is the only big unit in this group that has reported. Its earnings were up sharply, but that's partly because 1956's strike troubles helped to make 1957 look good. Still Westinghouse had a genuinely good year, and it's likely that General Electric will also have some good news for its stockholders. The catch is that for some time only those segments of the trade that make utility equipment and nonconsumer goods have been progressing satisfactorily. Companies that depend more on consumer items found 1957 a less happy year, nor is there any indication that things will get better for them.

Food products. In this large, loose group, the packaged food makers and the chain stores did well last year and are looking for more of the same. On the other hand, the meat packers had an unhappy time. So did the canners, to the extent that it even affected the earnings of American Can; a number of commodity processors had lean pickings. In all these cases, the decline was accentuated in the fourth quarter.

Nonferrous metals. The recession has had horrendous results for this trade, with shocking drops in the earnings alike of top companies and fringe producers. Dividend slashes have been numerous, more so than in any other industry. And the near-term outlook is bleak.

Oils. Earnings were off sharply and widely in the fourth quarter, and there is every indication that this year's first quarter will be even worse. Inventories have been troubling the trade, and it's not sure at all that these can be liquidated without price troubles. Cracks have been seen already in the price structures of both crude oil and refined products.

Steel. Most companies in this field have felt the sting of adversity, especially in the fourth quarter. As usual, the smaller units have taken the worst beating. Hopes for an upturn depend rather largely on a hoped-for improvement in sales of new cars. For this year, first-quarter earnings will be hard hit, since production has been running well below 60% of capacity for some weeks. **END**

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No Slump for Investment Clubs

Small groups that pool investments, though a product of bull market optimism, are still going strong; investors feel numbers give strength amid present uncertainties.

One of the phenomena of the mighty bull market of late memory was the rapid spread of investment clubs—groups of small investors pooling their money for joint investment.

The movement first attracted wide attention as long ago as 1951, when the National Assn. of Investment Clubs began life in Detroit with four member clubs. By 1955, the NAIC had expanded to 900 clubs (BW—Nov.5'55, p41); and its roster today includes 2,800 clubs with some 38,000 individual members.

In a survey in late 1957, the New York Stock Exchange counted 8,100 investment clubs operating throughout the U.S., with 120,000 members. At that time, these clubs held stocks worth about $50-million, and were adding to their portfolios at the rate of more than $2-million each month.

• **Undaunted**—With the bull market interred, supporters of the investment club movement are asking themselves whether investors are as enchanted with the clubs in December as they were in May. From all indications, the answer is generally affirmative. Listen to John Latshaw, resident partner in the Kansas City office of E. F. Hutton & Co., New York brokerage house:

"Investment clubs are more popular than ever now despite the current trends in the stock market. The idea is that in times like these there may be strength in numbers rather than in dissociating." Latshaw goes on to explain: "The members seem to feel that by discussion and exchange of ideas they will be able to choose the issues more carefully and intelligently for their investments."

This view is supported by Thomas O'Hara, chairman of the trustees of the NAIC. Not only has the stock market slide failed to slow club formation, he says, but veteran clubbers are as enthusiastic as ever. A few nights ago O'Hara called on four Detroit clubs, none of them now worth as much as the members had put in. The members were still cheerful. O'Hara points out that with lower securities prices, members' money goes further.

George Bartlett, a partner of Thomson & McKinnon, Wall Street brokerage firm with offices in 42 cities in the U.S. and Canada, says club members now try to determine which companies will do best in a recession. His firm has long supported the club movement, and has representatives who spend full time advising investment clubs and helping new ones start.

• **Not All Roses**—Despite continuing enthusiasm for the clubs in many quarters, there are pockets of discouragement and discontent—and some ticklish legal and tax difficulties that can bother even the most ardent groups.

Some of Wall Street's biggest brokerage firms today are reluctant to encourage individuals to form joint investment groups. Bache & Co., for one, thinks the basic idea is sound, but shies away from advising or dealing with investment clubs. Bache explains that the Internal Revenue Service has never clearly defined the liability and taxability of club members. Since brokerage firms are not in the business of giving tax or legal advice, Bache says, the proper handling of investment clubs is difficult at best.

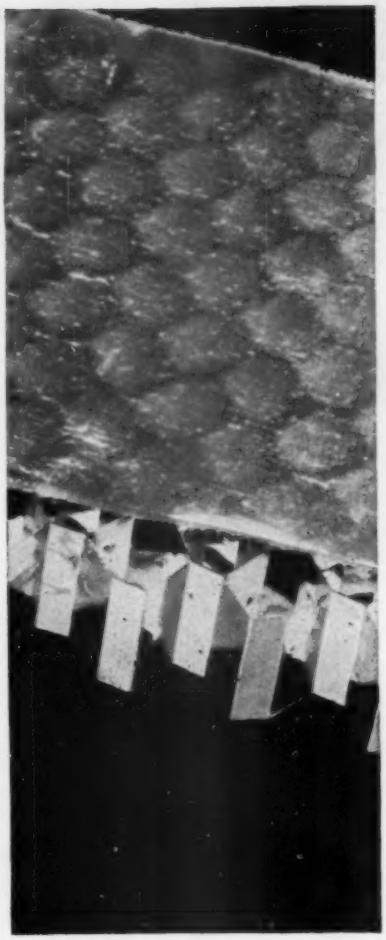
• **Corporation or Partnership?**—From the tax standpoint, the key problem is whether to tax investment clubs as corporations or partnerships. If as corporations, then the members in effect pay two taxes on their gains, once as part owners of the corporation and again as individuals. Naturally, all clubs want to be treated as partnerships, with only the tax on individuals.

But if, in the judgment of the Internal Revenue Service, a club is operated like a corporation, it can be taxed as one whether incorporated or not. IRS will never generalize, but apparently anything in the way of an executive committee, an investment committee, or a single officer empowered to buy and sell for the club puts it in the corporation category. If all have an equal voice in investment decisions, it's classed as a partnership.

A club can find out how it stands by submitting its operational plan for a formal IRS ruling. If IRS says it's operating as a corporation, it can change its ways and try again.

• **Broker Relations**—A club accepted by IRS as a partnership also gets along better with brokerage houses, which find club business largely unprofitable. When clubs have no legal form, transfer agencies object to transferring securities to them. So brokers handling the clubs hold their securities in "street name"—that is, in the name of the broker instead of the club. The broker then must collect dividends, send statements, audit accounts.

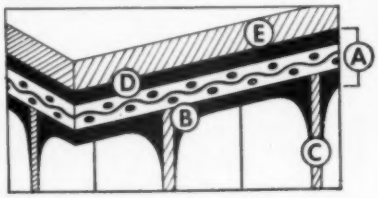
Once a club is formally organized as a legal partnership, securities can be

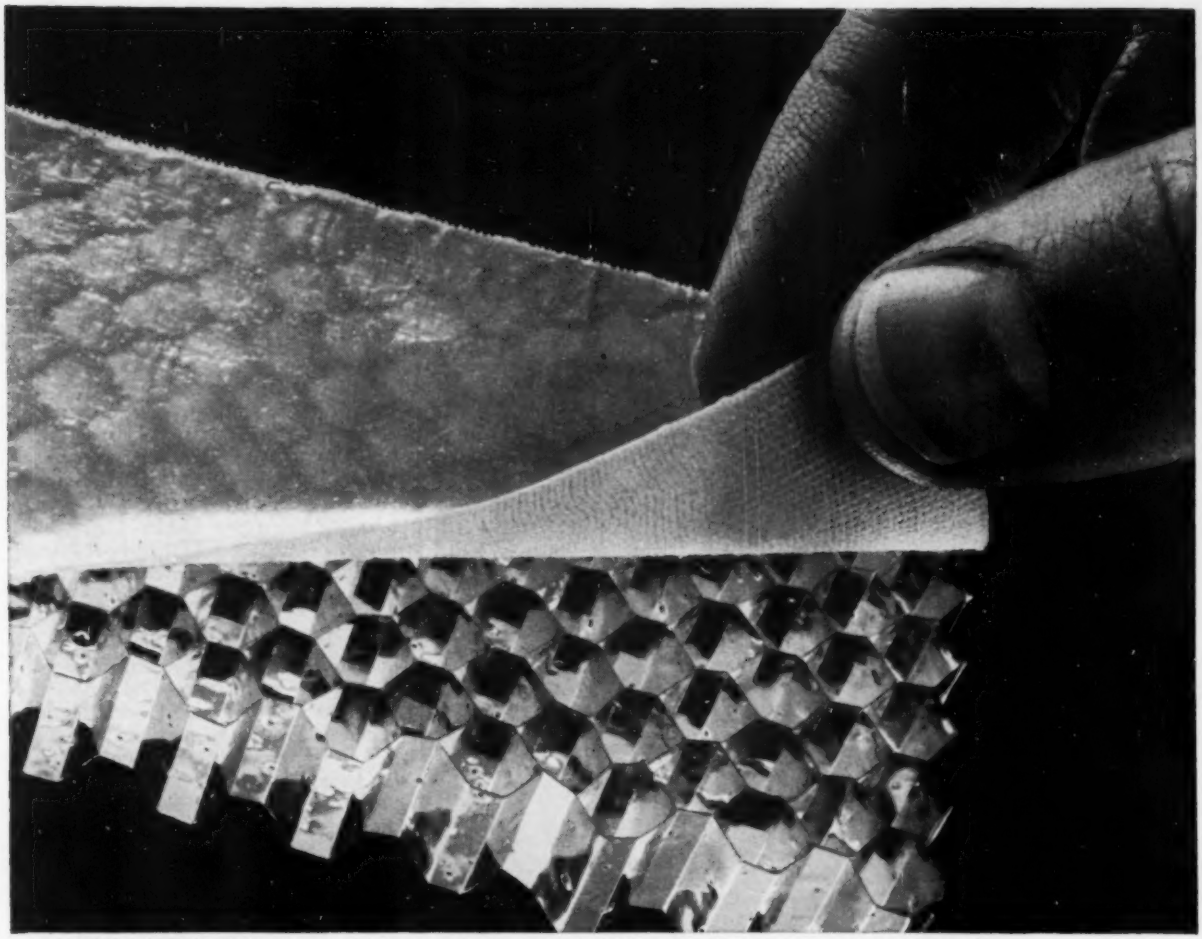


Dry/liquid

3M Research merges two technologies, creates new composite film adhesive

GREATER BOND AREA—One side of 3M Composite Adhesive Film (A) is coated with dry filleting epoxy (B). Under heat, this epoxy turns liquid, wets deep into the honeycomb (C), then cures chemically to a high-strength, solid fillet. Elastomeric adhesive (D), on the opposite side of the film, bonds firmly to skin material (E). You get a sandwich bond of controlled thickness, tougher and far less messy than previous sandwich construction adhesives.





THIS DRY ADHESIVE FILM will turn liquid when bonding heat is applied. A combination of epoxy resins and elastomeric components, it makes possible stronger honeycomb sandwich bonds for aircraft and many other industries, too.

adhesive helps jets fly faster

Today's jets fly faster, carry bigger payloads, thanks to a new 3M, dry/liquid adhesive film.

Thanks also to a daring leap of research imagination—from breweries to raincoats. Here's what happened:

The aircraft industry needed to bond honeycomb sandwich structures more strongly, more easily. 3M Research combined knowledge from two far distance sources. One, knowledge of deep filleting adhesives springing originally from glass-to-glass bonding in breweries. The other, knowledge of high peel strength adhesives stemming back to the apparel industry.

The result—a totally new adhesive family, 3M Composite Adhesive Films that turn liquid under bonding heat, avoid the messiness and handling difficulties of previous adhesives.

They combine *both* deep filleting and high peel strength, make possible far stronger, lighter, more fatigue-resistant aircraft wings, speed production, cut fabricating costs.

Incredible to consider jets, breweries, raincoats all at once? Not for 3M. This ability to combine research in many fields is the superiority of a fully diversified adhesive manufacturer like 3M. And of its products, too. Only 3M has such broad adhesive experience.

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ADHESIVES, COATINGS AND SEALERS DIVISION

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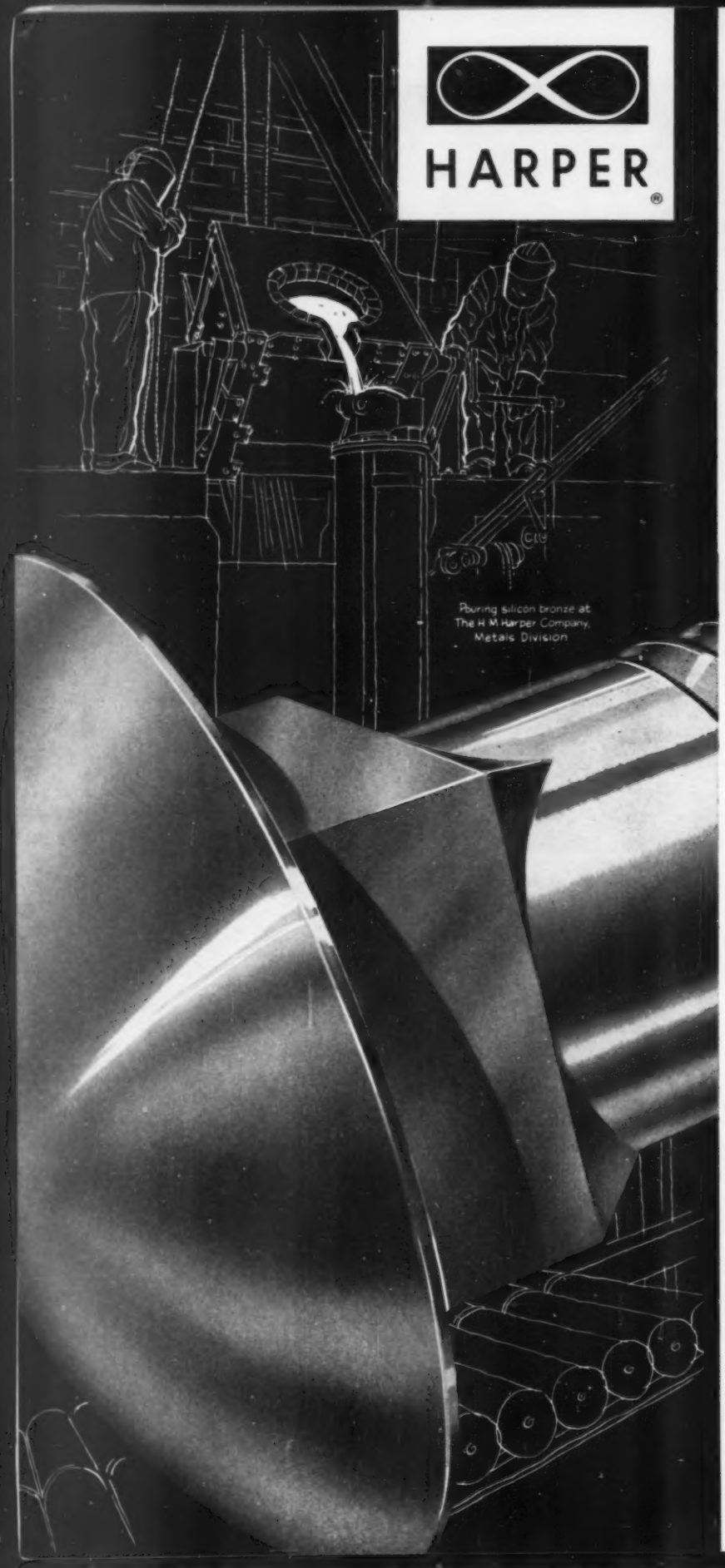


listed in its name. This cuts down the broker's handling costs.

• **Federal and State Rules**—Another important legal problem is whether or not club membership itself is a security. Some clubs offer their own shares for sale. This in effect is a public offering, subject to registration under the Securities Act of 1933. There's also a question whether a club may be an investment company required to register with the SEC under the Investment Company Act of 1940. SEC takes the view that as long as memberships are limited to relatively few, such registration probably is not necessary.

The North American Securities Administrators—made up of state securities commissioners—has just begun a committee study of investment club operations as they relate to state "blue sky" laws. Raymond Trigger, managing editor of Investment Dealers Digest and author of the just-published book, How to Run a Successful Investment Club, says the committee is considering stumping for state laws to exempt from state registration clubs that (1) have no more than 25 members; (2) limit monthly investments to $25 per member; and (3) have equal amounts invested by each member.

• **Averages and People**—According to last year's New York Stock Exchange survey, average club membership is 15, and most members are men. But New York investment counselor S. Spencer Grean, who has been advising investment clubs for 15 years, says women make better investors: "Basically men are gamblers, out to make a quick buck, but women want that washing machine."

A few clubs are big investors—one in Texas invests at a rate of $1,500 per member per month. But the average club investment of around $260 per month offers a very small commission and little attraction for a brokerage firm customer's man. Consider Donald Goldman, customer's man in the Atlanta office of Merrill Lynch, Pierce, Fenner & Beane—which doesn't encourage investment club formation though it probably handles more club accounts than any other broker. Typical of the eight clubs he advises is one made up of 18 professors at Georgia State College, investing an average $200 a month.

Says Goldman of his eight clubs: "If I let them, the members would take up all my time"—and it wouldn't be worthwhile handling the clubs.

• **Some Have Luck**—Goldman and many of his broker colleagues admit the clubs often stimulate business by becoming spawning grounds for investors who later open individual accounts. E. F. Hutton's John Latshaw tells of persuading one club to buy 100 shares of a certain stock at $17.50, with the result that the next day he

got orders from club members and others for 4,000 shares at $17.75 or better.

This stock panned out—everybody sold out a year later at $26.50. But a long-time Washington, D. C., club member and former club secretary has a diffrent story. He says: "I quit 18 months ago. I was losing too much money."

Wall St. Talks . . .

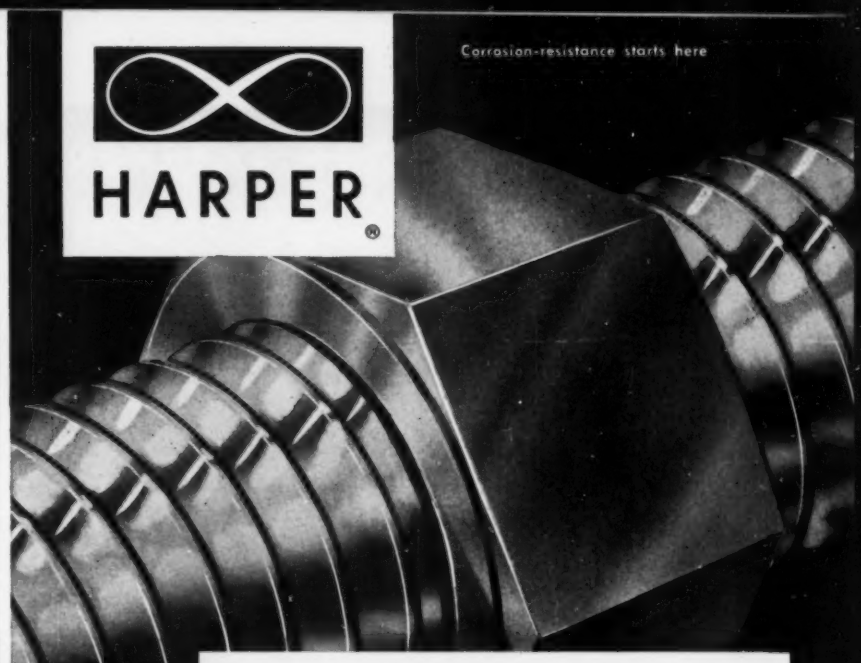
. . . about effect of first-quarter reports . . . another cut at St. Joseph Lead . . . Raytheon rumors . . . telephone layoff in West.

Smart Streeters are worrying over the sour reading that is due in many first-quarter earnings reports from important segments of the economy. And the worry is not solely over their possible effect on market sentiment. Argus Research Corp. wonders whether the erosion of profits will "have a further negative effect on management decisions to buy materials and supplies, and new plant and equipment," and whether it will touch off the "weakness-breeding-weakness that characterizes the difference between a recession and depression."

Ouch! St. Joseph Lead Co., a leader in the harassed nonferrous metals group (page 55), cut its quarterly dividend for the third time since June. The first cut was from 75¢ to 50¢, then down to 37½¢, and now to 25¢.

Rumors about Raytheon Mfg. Co. offer these tidbits about the maker of electronic devices and TV tubes, which has not paid a dividend for quite a while: (1) Big institutional investors are snapping up the stock, (2) the company's 1958 earnings should run around $2.50 a share, compared with 70¢ last year, (3) both Martin and Lockheed want to absorb the company. Responsible Streeters are very skeptical of all this talk, but traders have lent an eager ear. As a result, on Monday the stock was runner-up for the Big Board's most active issue, and by the close it had shot to $24¼, a rise of 48% from the 1958 low it registered a few weeks ago.

Even the telephone business is feeling some repercussion from the business recession. Streeters noted that Pacific Tel & Tel let it be known that it had laid off 250 operators in Northern California, due to a "leveling off in business activity resulting in fewer demands for new phones." And PT&T



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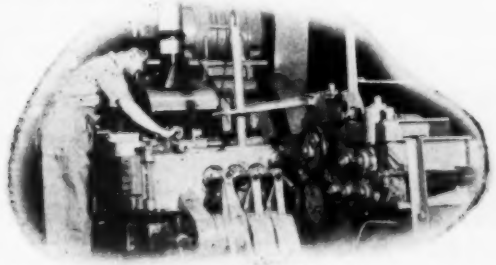
Coupled with immediate availability of thousands upon thousands of standard Harper Corrosion-Resistant Fastenings from your nearby Harper Distributor —who adds more years of specific fastening experience —you are as near as your telephone to the world's finest corrosion-resistant fastenings.



Operator observes .734" wire being headed into finished bolts

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Here's a brand new Docker, Model FFEH, designed specifically for operation where loads up to 4000 lbs., 48" long, must be handled in extremely close quarters. It offers the same 8-point superiority common to all Dockers: (1) faster lift and travel for higher productivity; (2) greater safety due to lower center of gravity and 4-wheel suspension; (3) shorter, more compact chassis for fast, efficient work in close quarters; (4) higher grade clearance increases operating range; (5) shorter turning radius improves maneuverability; (6) lower step height and rear end control enable operator to get on and off easily and safely; (7) heavy duty Class-H Silicone insulated motor permits substantial over-load and higher starting torque with safety; (8) greater visibility when maneuvering. No other truck of its type offers so much!

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admitted that traffic was down on the phones now in service.

A "fad forecast": That's what Thomas I. Storrs, vice-president of the Richmond Federal Reserve Bank, calls the hopes that the business slump will hit bottom this spring. Storrs says that any look at 1958 prospects must start from the premise that what we have been seeing is a widespread recession, not a "rolling readjustment . . . by any accepted definition."

FINANCE BRIEFS

January net income of the Chesapeake & Ohio Ry. slid just below $3-million, compared with $4-million-plus a year ago. For the 1958 month, gross revenues were $29.7-million, down from $31.5-million. Many Wall Street analysts had expected the dip (BW—Feb.1'58,p54), which Chessie blamed on "decreased business activity of the nation," rather than to a drop in coal haulings. Actually, C&O loaded almost 2-million tons of coal into ships at Newport News, topping the 1957 month by 156,000 tons.

•

The decline of rail business continues to eat into dividends. The St. Louis-San Francisco Ry. is skipping its 37½¢ common dividend for the first quarter, and the Gulf, Mobile & Ohio has halved its regular 50¢ payout. The Atlantic & Danville Ry. has notified holders of its first and second mortgage bonds that it would not meet the Jan. 1, 1958, interest payment.

•

New municipals flooded to market last week at the highest weekly rate since mid-1954; dealers were run ragged handling 37 issues, totaling $275.7-million. On the single day of Feb. 4, more than $100-million in new municipals were sold at public bidding. The rush of new issues tended to fatten dealers' inventory loads.

•

Insurance companies may tack on retroactive charges on some auto liability policies, if they win their court fight for higher rates, the New York State Insurance Dept. has ruled. Last month the commissioner rejected the plea for a rate boost, but the companies have appealed.

•

Bad news: Stockholders of First Pennsylvania Banking & Trust Co. have been told by Pres. William F. Kelly that he expects the bank's 1958 gross income to drop about $500,000 below last year. He based his estimate on the current rate of loan business and especially on the cut in the prime lending rate.

The shape of things to come

Take a peek into the future and see a whole new approach to executive office living. Here is the Delta. It's from the new Steelcase Flight Line — executive office furniture thoughtfully designed for busy men. The massive top, with its distinctively different delta-wing shape, gives you almost unlimited work area and doubles neatly as a conference table for on-the-spot meetings with your staff. And, each pedestal and drawer carries a full complement of personal features to help you handle increasing amounts of work in an ever-shortening day. Better office furniture dealers are featuring the Flight Line now. See it soon! Steelcase Inc., Grand Rapids, Michigan. In Canada: Canadian Steelcase Co., Ltd., Don Mills, Ontario.

Our new full-color Flight Line brochure will tell you more about the shape of things to come. Ask your secretary to write Dept. B.

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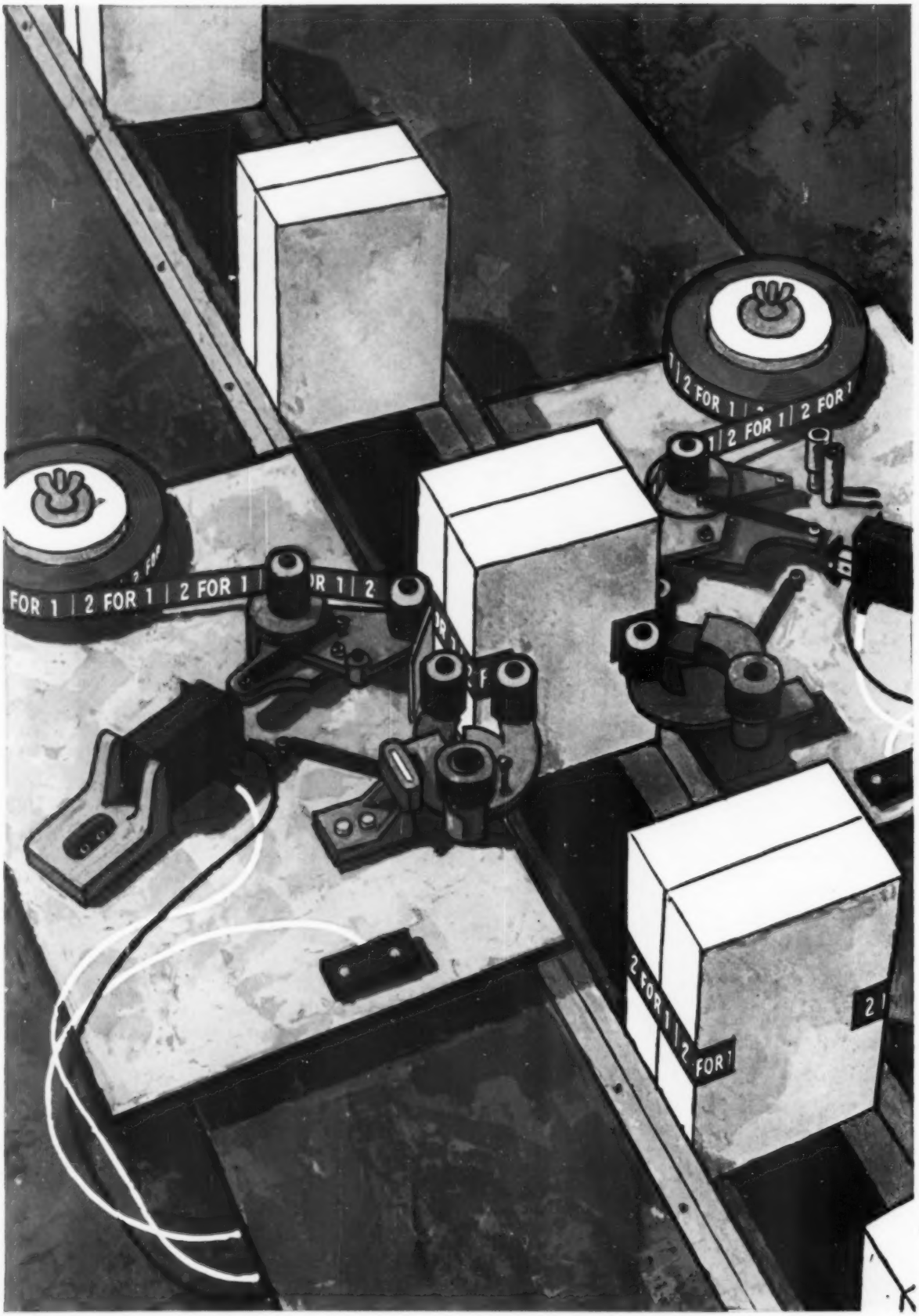
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"3M-MATIC" taping and dispensing method goes to work...

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You name it. Two-for-one offer? One-cent sale? Special promotion? Almost any package-combining or bundling problem can be solved with "3M-MATIC" dispensing methods and the right "SCOTCH" Brand Pressure-Sensitive Tape.

Here, for example, an S-69 Combination Package Bundler automatically applies measured lengths of printed "SCOTCH" Brand Tape to pairs of packages as they come down the production line. It turns out 75 "combinations" a minute, and can be adapted to handle multiple-unit bundling of various shapes and forms.

This is only one of the many tape-dispensing machines that make up the "SCOTCH" Brand family. There are motorized dispensers, semi-automatic and manual dispensers. There are machines to apply tape to tubes, flat surfaces, boxes, bags—practically any shape you can name. Together, these machines make up the world's most complete line of tape-dispensing equipment—with the right machine for every need.

And the *right* dispensing machine, in combination with the right pressure-sensitive tape, means better results in less time, at less over-all cost. 3M Tape Specialists have the right "3M-MATIC" tape and dispenser combination for you. They're ready to work with your staff. There's no charge or obligation, of course.

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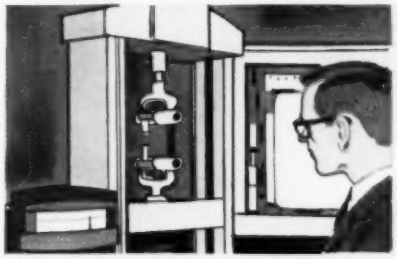


TOP QUALITY is assured by the largest tape laboratories in the country.

CUSTOMER ENGINEERING service offered without cost or obligation.

PROMPT SERVICE is guaranteed by 3M's national distributor organization.

When tape costs so little, why take less than SCOTCH® BRAND

MINNESOTA MINING AND MANUFACTURING COMPANY

...WHERE RESEARCH IS THE KEY TO TOMORROW

3M COMPANY

© 3M Co., 1958

Photographs by Fritz Henle

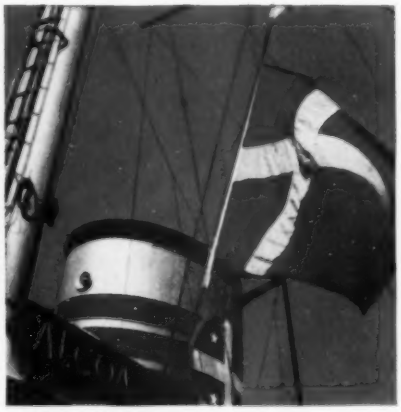
Want your shipments to the Caribbean to arrive safely, on time, in good condition? It helps when cargo is checked and double-checked every step of the way. By being careful never to take anything for granted, Alcoa has established an unusually fine cargo handling reputation.

Frequent, regular service is provided by Alcoa from Atlantic and Gulf ports to Venezuela, Puerto Rico and other areas of the Caribbean. If you export, or if you would like to consider tapping the rich Caribbean market, write for the 1958 edition of our "Caribbean Handbook."

Nursemaids for Caribbean Cargo

Cargo lockers sealed! The slightest carelessness in this matter invites pilferage . . . becomes costly to you in customer good will. Alcoa officers are careful to make sure that important details like this are taken care of properly.

Refrigerator OK! Reefer boxes must be kept at the proper temperature if perishable cargo is to travel safely. Here, an Alcoa engineer makes one of his twice-daily checks on the temperature level of the reefer boxes.



Caribbean Cruises—on air-conditioned, passenger-cargo ships from New Orleans—on modern freighters from New York, Mobile, New Orleans—on new, air-conditioned, 12-passenger ore ships from Mobile. See your travel agent or write for cruise booklet "L".

ALCOA

serves the Caribbean

ALCOA STEAMSHIP COMPANY, INC. • DEPT. A, 17 BATTERY PLACE, NEW YORK 4, N. Y., OR DEPT. C, ONE CANAL STREET, NEW ORLEANS 12, LA.

Offices in: Baltimore • Chicago • Kansas City • Los Angeles • Milwaukee • Mobile • Norfolk • St. Louis • San Francisco

In Regions

• • •

Florida Court Will Take a Second Look At Legality of Dade County Amendment

A last-hour court action postponed this week's referendum on a proposed charter amendment that would weaken the powers of the nation's first metropolitan government, Florida's Dade County Commission.

The amendment, which would guarantee autonomy for Miami and 25 other municipalities in Dade County, was proposed by the Dade League of Municipalities.

Opposed from the start to yielding power to the metropolitan government, the cities were particularly provoked by a number of hasty, sweeping ordinances that were proposed at the commission's organization last July. The commissioners say the proposals subsequently have been modified or even withdrawn.

Advocates of the metropolitan government were particularly upset at the prospect of the amendment's success since they feel the government was not given a fair chance to prove itself. They point out that the ordinances were proposed before County Mgr. O. W. Campbell was able to leave his San Diego job to take over in Miami in September.

The court action was brought by two attorneys. They and their counsel, said to be peeved at Miami's city government, sued on grounds that the proposed amendment was unconstitutional.

County Circuit Court Judge George E. Holt ruled that the amendment was constitutional all right, but that the election should be put off 90 days to allow the Supreme Court to rule on the question.

• • •

Baltimore Mayor Backtracks on Tax Issues As Critics Blame Them for Business Ills

In an unbilled television speech last weekend, Mayor Thomas D'Alesandro reversed his position on controversial Baltimore taxes.

A candidate for senator in the coming election, **the mayor proposed gradual elimination of the manufacturers' inventory and machinery tax, reduction of the merchants' inventory tax, elimination of the tax on advertising, and reduction of the city cigarette tax.**

To compensate for the $22-million loss in city revenues, D'Alesandro said he will appoint a commission to study alternate sources of funds.

"Many people are blaming the manufacturers' tax" for unemployment and other business ills, D'Alesandro asserted. "This gives the city a bad name throughout the country. We are blamed for layoffs which have nothing to do with taxes but are due to the recession."

The advertising tax, imposed Jan. 1, got national attention from advertisers and media. D'Alesandro proposed that it be eliminated next Jan. 1, but suits testing the city's right to levy the tax probably will be carried on.

The manufacturers' tax, upheld by a state court, would be eliminated over four years. Business protested it was forcing industries to bypass, leave, or retrench in Baltimore; but only a month ago Mayor D'Alesandro was treating such objections as "nonsense" and the city council backed him up.

• • •

St. Louis Group Starts Raising Money To Rescue Its Downtown Business Section

St. Louis downtown interests—from department stores to parking lots—are raising $217,000 to finance the first annual budget of Downtown in St. Louis, Inc., a new organization set up to promote and develop the city's downtown area.

For months, St. Louis businessmen have worried about the decline of downtown, wondered who should be doing what about it. Last year, a group headed by Chmn. Sidney Maestre of Mercantile Trust Co. retained the public relations firm of Fleishman-Hillard, Inc., to survey what other cities are doing and what existing organizations in St. Louis are achieving.

The survey found that none of the associations now in St. Louis was inclined or equipped to provide the necessary work in both development and promotion. It recommended creation of a new organization with a four-man fulltime staff and a board composed of 15 businessmen, the Chamber of Commerce president, and the chairman of the City Planning Commission. Its program would range from backing anti-pigeon ordinances to attracting tenants for office buildings.

• • •

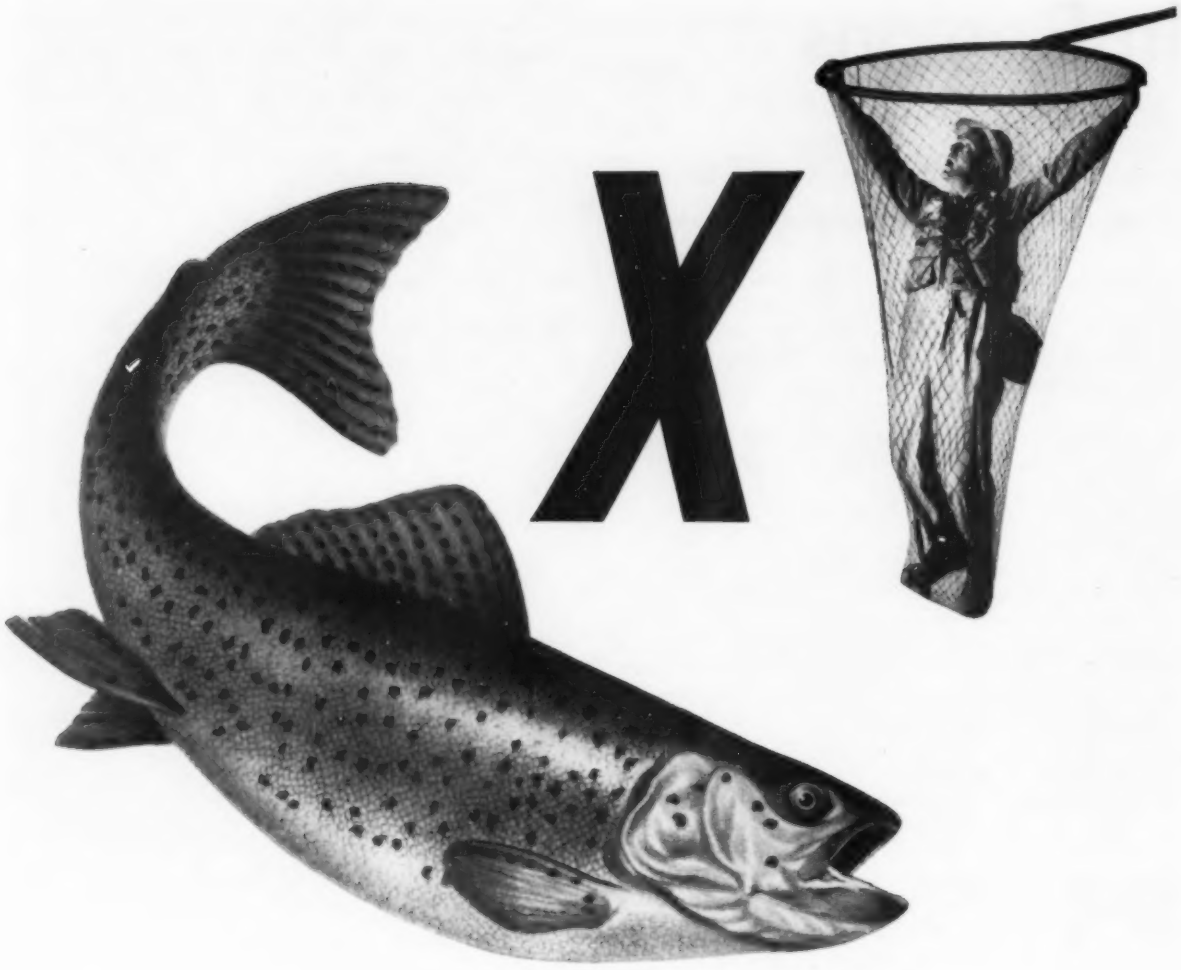
New York City Wants State Approval To Develop Vacant Areas for Industry

At the request of city hall, Republican and Democratic lawmakers from New York City are sponsoring a state bill to help municipalities retain and attract industry. The bill would permit them to condemn vacant or predominantly vacant land that could be developed for industrial, commercial, or residential use.

Federal urban renewal laws, concerned mainly with eliminating slums and providing new housing, do not provide for developing vacant areas in blighted surroundings for industry. **Yet such areas represent an opportunity for older, highly developed cities whose industries are slipping out of town for want of room.**

Often, such vacant areas are subdivided into small parcels that are too costly, if not almost impossible, for a private owner to acquire—partly because of high delinquent taxes and unclear titles.

The proposed law would not write down the cost of the land for industry—or commercial or residential buyers—but it would make acquisition easier by invoking the right of condemnation. The municipality would be required to sell or lease the land at "the highest marketable price" at public auction or by sealed bids.



How to fish for men

with the help of Air EXpress and Extra-Fast Delivery.

This is the story of a big *profit* that didn't get away.

Seems that when a run of fish develops anywhere in the country, men from miles around rush to buy rods, reels, hooks, everything. The fish won't wait, and fishermen can't. So an alert manufacturer casts his net in these moneyed waters, and lands the business – with the help of Air E***X***press. He speeds deliveries to stores, even thousands of miles away, no later than *overnight*.

If you, too, would like to land extra sales – no matter *what* you sell – call Air E***X***press, the name with the ***"X"*** in it. For Air E***X***press is the *only complete* door-to-door air shipping service to thousands of U.S. cities and towns. It multiplies your selling opportunities with 10,212 daily flights on America's scheduled airlines – plus fast pick-up with 13,500 trucks (many radio controlled) – plus a nationwide private wire system. Yet Air E***X***press is inexpensive; a 15 lb. shipment from South Bend, Indiana to Grand Junction, Colorado costs only $8.03 with Air E***X***press – $1.68 less than any other complete air shipping method. Explore all the facts. Call Air E***X***press.

AIR EXPRESS

GETS THERE FIRST *via* ***U. S. SCHEDULED AIRLINES***

CALL AIR EXPRESS ... division of **RAILWAY EXPRESS AGENCY**

In Marketing

• • •

Diamond Alkali Drops Consumer Line Of Insecticides, Lawn Chemicals

Diamond Alkali Co., Cleveland, has sold its consumer line of insecticides and lawn chemicals marketed under the Diamond Black Leaf label.

The reason, says Pres. Raymond F. Evans, is that the company found it "can't merchandise a one-line consumer product." The company either had to expand its consumer lines or get out of the business.

This is the second big chemical company that has found the single-line consumer field uneconomic. Last year Monsanto Chemical Co., after a major merchandising campaign, decided to drop out of the detergent business with its product "all" (BW—Jun.1'57,p36).

Diamond is keeping the commercial pesticides and fertilizers of the old Black Leaf line, but has disposed of the inventory and other assets, including the Black Leaf brandname, to a newly formed Chicago firm, Black Leaf Products Co., set up under Empire Factors Corp.

The move leaves Diamond with virtually no consumer products. The Black Leaf acquisition by Diamond was part of an expansion and diversification plan that the company says is still continuing, although it will not include single-line consumer products.

• • •

Auto Industry Opens Its Bag of Tricks Early to Pull in the Customers

Lagging auto sales and a dealer inventory buildup to an estimated 750,000 cars has the industry lumbering out its heavy promotion guns early in the model year.

In January, several makers already had begun offering sales bonuses and contests to dealers and salesmen—something that usually doesn't happen until midsummer.

This month, DeSoto **dealers in the Covina (Calif.) area stationed salesmen in the Eastland Shopping Center in suburban Los Angeles.** Each one has a car for show and demonstration as shoppers enter the center and browse around the mall.

DeSoto first tried this idea last fall in Detroit's two big shopping centers. It was successful enough to draw DeSoto competitors into the act. In California, dealers have made three or four direct sales, hope for eight or 10 during the promotion.

In Seattle, S. L. Savidge, Inc., a big Dodge-Plymouth dealer, is trying a different tack. **It has set up a Car Saver Club to help people accumulate more for downpayments.** Under the plan, a potential buyer can start making payments (minimum $25) into a fund on which he gets a 7% a year bonus, computed on the actual number of days the money is in Savidge's hands. If a person changes his mind, he gets his money back, plus 3½%.

MORE NEWS ABOUT MARKETING ON:

- P. 70 Pres. Charles H. Brower (cover) leads BBDO, fourth largest advertising agency, in a time of expansion and reappraisal.
- P. 82 How Stouffer's makes a profit on every bite of food it serves in its restaurants.

• • •

Boston's Tremont Street Loses Its Appeal for Retail Merchants

By Mar. 1, there will be three empty stores, side by side, along Boston's Tremont Street to emphasize the troubles of today's downtown retailers (BW—Nov.23 '57,p71). Two already have closed, and the third, Coleman's Fashion Shop, will wind up its going-out-of-business sale at the end of this month. Only two large stores will then be left on Tremont Street—R. H. Stearns and C. Crawford Hollidge.

Coleman's Fashion Shop

The three stores to close on Tremont Street were women's specialty shops. E. T. Slattery Co. went into bankruptcy, and another, Chandler's, merged with Conrad's.

When Coleman's shuts down, it will be the fifth store of consequence to close in Boston since last summer. The other casualties were R. H. White, a big department store, and Plotkin Bros. Altogether, the five sold about $50-million.

E. T. Slattery Co.

Chandler & Co.

In announcing the closing of his store, Robert Coleman said: "There aren't enough people on Tremont Street to do business." Coleman's will continue to operate its stores in Wellesley and Worcester.

Instead of retail shops, it appears now that office buildings will replace the closed stores. One realtor has announced he is buying Chandler's buildings for renovation into offices overlooking Boston Common.

What's Behind the

Pres. Charles H. Brower (cover) takes helm of nation's fourth-largest agency in a time of general reappraisal.

COPY is worried out by Bernard Gross, seated, and Neil Leonard. BBDO employs 125 writers to turn ideas into words.

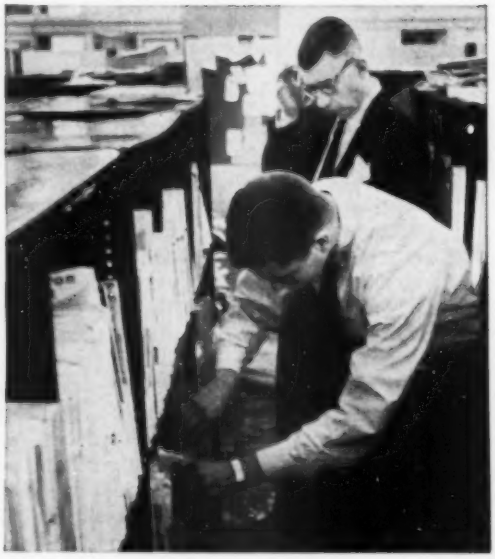
The people in these pictures are doing some of the routine jobs that make up what many outsiders think of as a mysterious and altogether glamorous business: running a Madison Avenue advertising agency.

They are among the more than 2,200 employees of Batten, Barton, Durstine & Osborn, Inc., the nation's fourth largest agency in dollar volume of advertising. (Others of the Big Four are, in order, J. Walter Thompson Co., Young & Rubicam, Inc., and McCann-Erickson, Inc.) Last year, BBDO placed an estimated $210-million worth of advertising in a variety of media for its 150 highly diverse clients.

Near the end of the year, Charles H. Brower (cover) took over the presidency of BBDO from ailing Bernard C. "Ben" Duffy, who moved up to vice-chairman. In Brower's freshman year of presiding over the intricate routine of agency work, the advertising business as a whole is running into some far from routine problems:

Madison Avenue is under attack from just about every molder of public opinion these days. Novelists picture the adman in a spider's parlor of glass brick and potted plants; they characterize him as a fast-talking, free-spend-

ART is created by people like Ted Freed, an art director. BBDO doesn't strain for clever gimmicks, favors "letting the client have his own look."



RESEARCH in field is backed by one of the largest agency libraries.

Scenes at a Big Agency—BBDO

PLANS BOARD, made up of department heads and top officers, hears account executive explain problem. Board must approve all plans.

IDEAS are generated in brainstorming sessions, left (Alex Osborn invented them), and by talking to experts, above, copywriter discusses lipstick with fashion expert Jane Gruen.

TALENT for 37 network TV shows is auditioned by BBDO. About 200 people work in agency's TV-Radio Dept.

(Story starts on page 72)

ing, loose-living operator. Sociologists see in Madison Avenue a mirror of an acquisitive, wasteful, misdirected society, with all its emotional and moral ills. Politicians find an adman behind every tree in Washington.

A few weeks ago, ex-Pres. Harry Truman singled out BBDO itself in his criticism of an Eisenhower-Dulles telecast. "Bunco, Bull, Deceit & Obfuscation," he labeled the agency. Actually, the agency complained, BBDO had nothing whatever to do with the broadcast, though it has represented the Republican National Committee in the past.

Advertisers are asking sharper questions about what the agencies do to earn the 15% commission they charge for placing advertising and for related services. Advertising expenditures have soared from $4.2-billion in 1947 to $10.4-billion last year. With sales generally sagging, companies are taking another look at their advertising outlay, getting more actively into the planning of campaigns, and demanding better proof of results.

At the same time, agencies themselves are asking questions about the changing nature of their services. What are they really selling—bright ads or marketing strategy? Both, most agencies promptly answer. Basically, agency operations are much more businesslike than the popular conception of wild, undisciplined activity as portrayed so often in modern novels and TV dramas. Yet writing ads is not a slide-rule job. Admen still face the crucial problem of balancing what they call the creative side of the business—thinking up and writing advertisements—with the service facilities such as marketing strategy, merchandising technique, and research.

As one BBDO'er phrases it "What an agency does is still not fully comprehended—even by clients."

I. Changing Role

Today, the advertising agencies are doing many kinds of work, and admen don't always agree on what should get priority. This problem arises from the way the agencies developed.

In the middle 1800s, the first advertising agencies acted merely as space brokers, first for publishers and later independently. They soon found they could sell more space if they helped advertisers to fill it. So they evolved into specialists at thinking up and writing ads—working for the advertisers rather than the publishers—and finding the best media to use.

As national marketing became more complex and competitive and the media vastly increased, agencies found they had to add all sorts of research and general marketing facilities, both for their own use and for that of their clients. By now, this process has gone so far that many admen suspect their

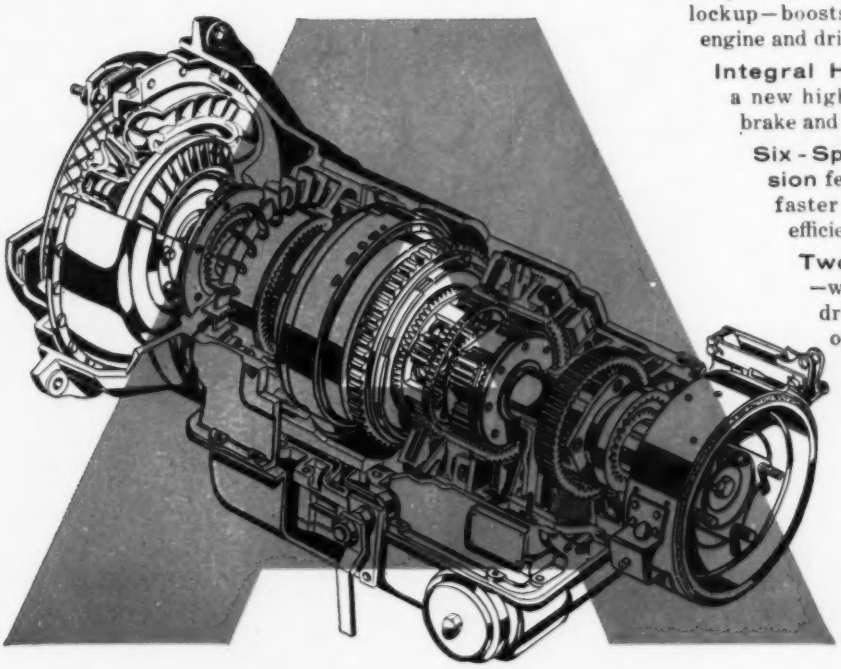
TESTING is a service for clients and for BBDO staff. Mrs. Vinny Meehan is one of agency's two home economists.

2,230 employees punch the time clock, including account executives Jack Leach, left, and Maury Jones, and secretary.

Whether your haul is measured in tons—in gallons—or in yards

the Allison Fully Automatic Truck Transmission

will enable you to haul more payload—faster—safer—and at lower cost than ever before—under every operating condition



Only the Allison *fully automatic* truck transmission gives you *all* these cost-saving features:

Torque Converter featuring direct-drive lockup—boosts operating efficiency—slashes engine and drive-line maintenance.

Integral Hydraulic Retarder—brings a new high in road safety—a new low in brake and tire maintenance.

Six-Speed Automatic Transmission featuring Triple-Drive Range—for faster trip time—increased driver efficiency.

Two Power Take-Off Openings—with exclusive torque converter drive for more power and faster operation of auxiliary equipment.

Allison Automatic Transmissions are currently sold by leading truck manufacturers under various trade names. Find out how an Allison fully automatic truck transmission can repay its modest cost many times over in *your* trucking operation. See your truck dealer or write:

ALLISON DIVISION OF GENERAL MOTORS, Indianapolis 6, Indiana

Allison TORQMATIC® DRIVES

If You could look inside...

a Permaglas water heater tank you'd know why its new kind of glass protected steel is the

Most important victory over water heater rust-thru

You're looking into a *Permaglas* HYDRASTEEL water heater tank — as it appears when it's working for you, providing hot water in abundance. Deep blue is the color of the glass fused to steel — a new kind of glass that promises many more years of rust-free performance.

A. O. Smith put "something new under the blue"

HOT WATER is one of the world's most corrosive elements. If you've ever experienced the costly mess of water heater rust-thru, you're bound to appreciate A. O. Smith's latest victory in the battle against corrosive attack.

The new *Permaglas* water heater carries 50% greater guarantee coverage than ever before. You get *protection for 15 years* . . . assuring you all the clean hot water you want for years and years to come!

Now for the story behind the victory. It results from A.O. Smith's leadership in the development of glass coatings that give longer life and more application versatility to the world's most useful metals.

Inevitably, our researchers developed new, high-performance glasses so advanced there was no existing steel with which they could be fused. Problem was *to bring the metal up to date.*

So A. O. Smith put "something new under the blue" of the glass protection. It's called HYDRASTEEL* — result of exclusive treatments that prepare the metal for the most durable glass formulations ever developed.

Permaglas® AUTOMATIC
GLASS-LINED WATER HEATERS
have proved their corrosion-resistant superiority in over 4,000,000 homes. The new *Permaglas* HYDRASTEEL models more than meet today's big-volume hot water requirements—produced by the world's largest manufacturer of glass-protected steel products. Don't risk rust-thru! Insist on a *Permaglas* HYDRASTEEL water heater.

• Write for free, illustrated booklet that tells the story of glass-protected steel. Another of the many ways A. O. Smith works steel to make steel work for you.

*Patents pending

Through research A.O. Smith *. . . a better way*

A.O.Smith
CORPORATION
MILWAUKEE 1, WISCONSIN

. . . where creative skill with steel serves you through better products and processes for home, farm, industry and government.

A. O. Smith International, S.A.,
Milwaukee 1, Wisconsin, U.S.A.

"Standout" Spot...
for your new plant—in B&O's Land of Big Opportunity.
Follow the lead of "standout" industries, Plan with a B&O man!
PHONE OR WRITE:
T. G. GORDON, Industrial Agent
BALTIMORE 1—LExington 9-0400
G. E. FERENCE, Industrial Development Agt.
NEW YORK 4—Digby 4-1600
A. C. TODD, Industrial Agent
CINCINNATI 2—DUnbar 1-2900
FIELDING H. LEWIS, Industrial Agent
PITTSBURGH 22—COurt 1-6220
W. E. OLIVER, Industrial Agent
CHICAGO 7—WAbash 2-2211
B&O
BALTIMORE & OHIO RAILROAD
Constantly doing things—better!

agencies will eventually be renamed marketing agencies.

• **Good or Bad?**—Partly, the auxiliary services have developed in response to real needs. Some advertising men are enthusiastic about them. They say agencies should get into all phases of the client's marketing problems; this helps to generate more advertising, they contend.

You won't find an adman who will say outright that he doesn't believe in research or that his agency doesn't make full use of it, but you'll find many who wonder aloud if too much research doesn't dampen the creative spark. And some observers—even admen themselves—have suggested unkindly that many such services are created primarily to justify taking 15% of advertising budgets that are far larger than they used to be.

Agency compensation has drawn a lot of attention lately, centering around the Frey report (BW—Nov.2'57,p155).

• **Matter of Emphasis**—BBDO makes a point of not going overboard on non-advertising services, though Brower pays his respects to research as an aid in creating advertising. "It's a matter of not going off half-cocked," he says. Much research is "a multiplication of what any intelligent person would do," he says, and merely "dramatizes the obvious."

Some agencies, Brower says, let research become dominant, and as a result they fail to produce imaginative campaigns. "Research is the field from which you take off—not the plane itself," he sums it up.

"Nothing in any agency will ever take the place of a good creative idea," declares Exec. Vice-Pres. J. Davis Danforth, in charge of account service and new business.

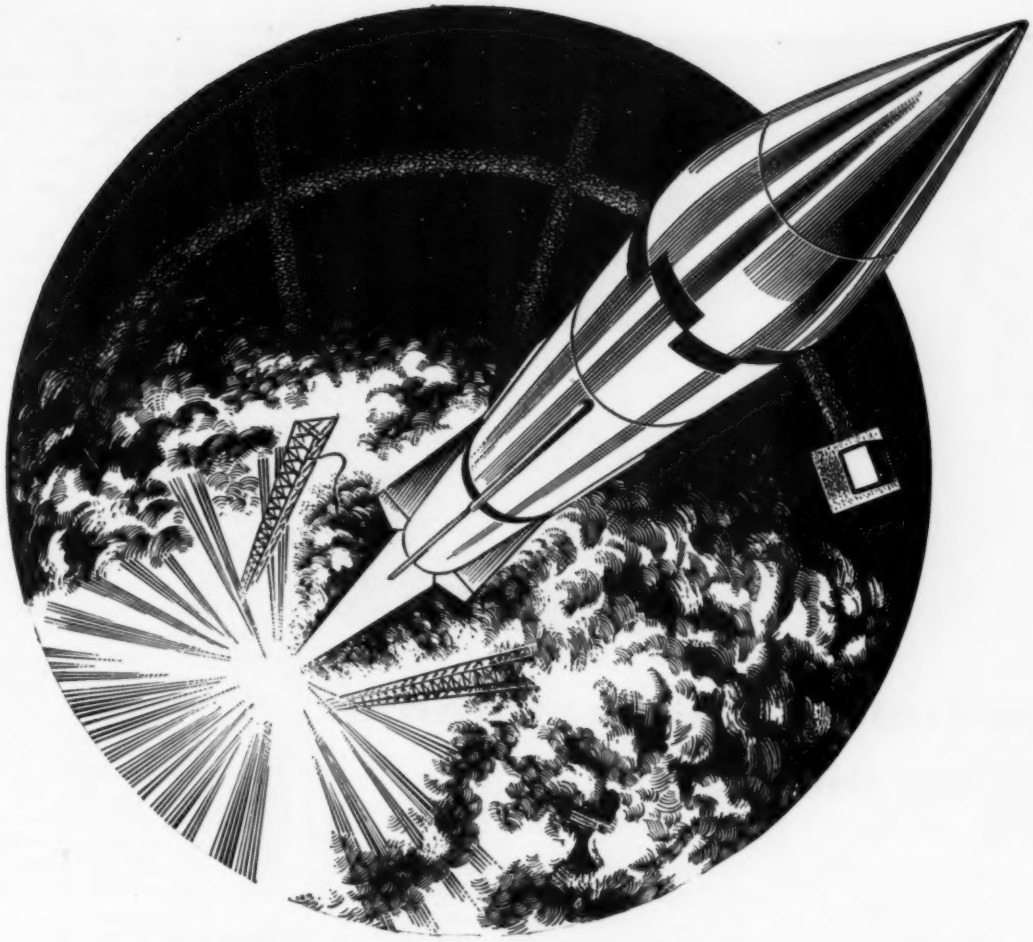
II. Agency Personality

None of this means that BBDO is hostile to the research side of the business. BBDO was one of the first agencies to open a marketing department. Its reputation for spadework of this sort is part of its personality as an agency.

Even the agency's name has added to its reputation down through the years. Men in the trade have often commented that the name sounds made to order for a musical comedy about advertising agencies. Chmn. Bruce Barton, one of the country's best-known advertising men, explains that BBDO was intended as only a temporary name.

"We were going to do what we tell our clients—get a name that is short and easy to remember," he says. "But Batten, Barton, Durstine & Osborn became a vaudeville joke, and we were famous."

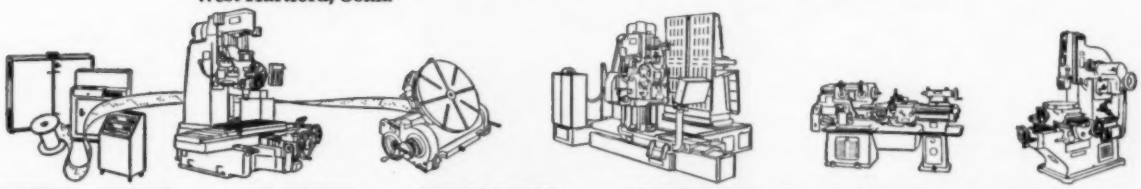
• **30 Years of Marriage**—The four famous names were linked up in Sep-



. . . and precision standards are going up with them!

Missiles, high-density aircraft and atom-powered equipment are heading for fantastic performance levels. And – because higher performance always demands higher accuracy – components must now be held to tolerances once believed impossible. Getting *your* share of this multi-billion-dollar business demands machine tools that can combine *toolroom* standards of accuracy with production-line standards for speed, ease and efficiency of operation.

Featuring such advanced concepts as Numerical Control and permanently accurate Electrolimit Measurement, Pratt & Whitney Jig Borers, Rotary Tables and other machine tools have demonstrated their ability to increase precision and, at the same time, multiply output, reduce production time and eliminate costly scrap losses. Let us send you case-history facts that prove these Pratt & Whitney Machine Tools can help *you* achieve this difficult combination of greater accuracy *plus* greater speed. Write to Pratt & Whitney Company, Inc., 41 Charter Oak Blvd., West Hartford, Conn.



NUMERICAL CONTROL . . . JIG BORERS . . . ROTARY TABLES . . . KELLER MACHINES . . . LATHES . . . VERTICAL SHAPERS

PRATT & WHITNEY

FIRST CHOICE FOR ACCURACY

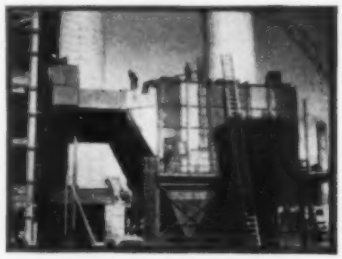
MACHINE TOOLS • GAGES • CUTTING TOOLS

Specialists in treatments for the flue

A Buell Dust Collection System can do more than mollify public opinion . . . it can probably improve the health of your balance sheet, too! In fact, in over 80% of all cases, Buell installations pay for themselves in a few years, just from recovered dusts.

Hundreds of installations and over twenty years of experience back up every installation. Exclusive, Buell-engineered features add important extra efficiency to every system, whether mechanical, electrical, or combination . . . extra efficiency that pays off in higher percentages of dust recovered as well as minimum maintenance year after year.

Find out more about what Buell can do for your plant. Write for a copy of the informative booklet, "The Collection and Recovery of Industrial Dusts." Just write to Dept. 30-B, Buell Engineering Company, Inc., 123 William Street, New York 38, N. Y.



Buell Precipitator at major cement plant.

buell®

MECHANICAL ELECTRICAL

Experts at delivering Extra Efficiency in
DUST COLLECTION SYSTEMS

tember, 1928, when the 37-year-old George Batten Co. merged with the nine-year-old Barton, Durstine & Osborn Co. Both agencies were at 383 Madison Ave.—Batten on the 10th floor and BDO three floors below—and the agency is still at the same address. The merger created an agency with about 600 employees, three branch offices, and $32-million in billings.

After a Depression setback (1933 billings dropped to $14.8-million), the agency began a slow but steady climb. Two shifts in management took place:

In 1939, Roy Durstine left to form his own agency, and Barton became president and Alex Osborn, executive vice-president. They began expanding the diversity of clients, taking on package goods and other consumer accounts to balance the earlier emphasis on corporate and institutional accounts. They widened employee ownership and developed research and marketing services.

In 1946, a younger group stepped up the pace. These men included Duffy as president, Brower as executive vice-president in charge of all creative services, Danforth, and Fred Manchee, now executive vice-president and treasurer. This era brought in such big consumer accounts as American Tobacco's Lucky Strike cigarettes (BBDO now has Hit Parade, too), De Soto cars, General Mills' Betty Crocker cake mixes, Campbell soups, and Schenley whiskey.

The $50-million of billings in 1946 have now grown past $210-million. The agency payroll is up to 2,230 employees, and there are branch offices in 16 cities.

• **No Razzle-Dazzle**—BBDO's personality leans toward the substantial citizen rather than the flamboyant Hollywood-type adman. Its offices, for example, are almost self-consciously plain, in contrast to the sumptuousness of many real-life agency offices.

Clarence Eldridge, former marketing vice-president of Campbell Soup Co., explains why Campbell selected BBDO to help broaden the market for soup: "We chose BBDO for its balanced, well-rounded approach—not first in any one thing, but strong in all departments." Many people who work around Madison Avenue view BBDO in much the same light. They refer to it as steady, balanced, conservative, maintaining high standards.

This sounds like high praise. But it grates a bit on BBDO people like Brower. He regards adjectives such as "balanced" and "conservative" as carrying a sense of stodginess and lack of imagination.

"I wouldn't hire a man just because he was well-balanced," he says wryly.

He speaks with the creative man's concern for imagination and flair. He grew up in BBDO's creative departments, first in 1928 as a copywriter, then as an account executive, in 1942

They're both looking at GIANTS

The up-looking man is looking at the **Giant Boeing-707,** America's largest commercial airliner. **The reading man is looking at TRUE,** world's largest **man's** magazine—**the giant man-reacher.**

TRUE delivers 2¼ million primary readers—2¼ guaranteed ABC net paid circulation of MEN on the move. Men who earn more, spend more, really go places: just name your game, golfing, boating, flying, hunting or fishing. Men building careers and families . . . readers right in the prime of their consuming life.

They like **TRUE'S man-to-man, all facts editing** . . . give close attention to everything in "their" magazine. And you get this big market **without paying for waste circulation** at the mixed mass weekly prices. You sell for less to your best brand prospects: men.

Automobiles, beer, life insurance—product after product—the man makes the big brand decision. You'll find all the facts in True's new reports made by Daniel Starch & Staff in consultation with the Advertising Research Foundation.

Take advantage of the young giant in the mass magazine field. Enjoy the brand selling power of the leading man's magazine. Spend fewer dollars and reach 2¼ million customers . . . men on the move. **Buy TRUE,** top choice in the big male market.

MALE vs. FEMALE BUYING POWER

Get the facts on who is *really* buying your product. Ask for the Starch report on your category.

Automobiles Air Conditioners Beer Tires Business Shirts Air Travel Life Insurance Liquor Shaving Cream Outboard Motors Television Sets Electric Shavers

AMERICA'S LARGEST SELLING MAN'S MAGAZINE

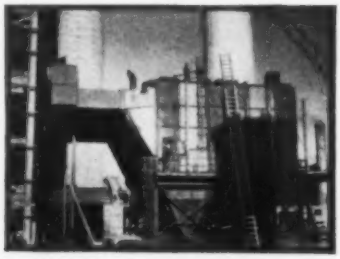
A FAWCETT PUBLICATION—Fawcett Bldg., New York City

Specialists in treatments for the flue

A Buell Dust Collection System can do more than mollify public opinion . . . it can probably improve the health of your balance sheet, too! In fact, in over 80% of all cases, Buell installations pay for themselves in a few years, just from recovered dusts.

Hundreds of installations and over twenty years of experience back up every installation. Exclusive, Buell-engineered features add important extra efficiency to every system, whether mechanical, electrical, or combination . . . extra efficiency that pays off in higher percentages of dust recovered as well as minimum maintenance year after year.

Find out more about what Buell can do for your plant. Write for a copy of the informative booklet, "The Collection and Recovery of Industrial Dusts." Just write to Dept. 30-B, Buell Engineering Company, Inc., 123 William Street, New York 38, N. Y.



Buell Precipitator at major cement plant.

buell®

MECHANICAL ELECTRICAL

Experts at delivering Extra Efficiency in
DUST COLLECTION SYSTEMS

tember, 1928, when the 37-year-old George Batten Co. merged with the nine-year-old Barton, Durstine & Osborn Co. Both agencies were at 383 Madison Ave.—Batten on the 10th floor and BDO three floors below—and the agency is still at the same address. The merger created an agency with about 600 employees, three branch offices, and $32-million in billings.

After a Depression setback (1933 billings dropped to $14.8-million), the agency began a slow but steady climb. Two shifts in management took place:

In 1939, Roy Durstine left to form his own agency, and Barton became president and Alex Osborn, executive vice-president. They began expanding the diversity of clients, taking on package goods and other consumer accounts to balance the earlier emphasis on corporate and institutional accounts. They widened employee ownership and developed research and marketing services.

In 1946, a younger group stepped up the pace. These men included Duffy as president, Brower as executive vice-president in charge of all creative services, Danforth, and Fred Manchee, now executive vice-president and treasurer. This era brought in such big consumer accounts as American Tobacco's Lucky Strike cigarettes (BBDO now has Hit Parade, too), De Soto cars, General Mills' Betty Crocker cake mixes, Campbell soups, and Schenley whiskey.

The $50-million of billings in 1946 have now grown past $210-million. The agency payroll is up to 2,230 employees, and there are branch offices in 16 cities.

• **No Razzle-Dazzle**—BBDO's personality leans toward the substantial citizen rather than the flamboyant Hollywood-type adman. Its offices, for example, are almost self-consciously plain, in contrast to the sumptuousness of many real-life agency offices.

Clarence Eldridge, former marketing vice-president of Campbell Soup Co., explains why Campbell selected BBDO to help broaden the market for soup: "We chose BBDO for its balanced, well-rounded approach—not first in any one thing, but strong in all departments." Many people who work around Madison Avenue view BBDO in much the same light. They refer to it as steady, balanced, conservative, maintaining high standards.

This sounds like high praise. But it grates a bit on BBDO people like Brower. He regards adjectives such as "balanced" and "conservative" as carrying a sense of stodginess and lack of imagination.

"I wouldn't hire a man just because he was well-balanced," he says wryly.

He speaks with the creative man's concern for imagination and flair. He grew up in BBDO's creative departments, first in 1928 as a copywriter, then as an account executive, in 1942

They're both looking at GIANTS

The up-looking man is looking at the **Giant Boeing-707,** America's largest commercial airliner. **The reading man is looking at TRUE,** world's largest **man's** magazine—**the giant man-reacher.**

TRUE delivers 2¼ million primary readers—2¼ guaranteed ABC net paid circulation of MEN on the move. Men who earn more, spend more, really go places: just name your game, golfing, boating, flying, hunting or fishing. Men building careers and families . . . readers right in the prime of their consuming life.

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AMERICA'S LARGEST SELLING MAN'S MAGAZINE

A FAWCETT PUBLICATION—Fawcett Bldg., New York City

Quick copies of anything on paper

with the new A. B. Dick photocopy duplicator

"On-the-spot" copies of anything printed, duplicated, typed, written, drawn or photographed . . . on opaque, two-sided or transparent paper, white or colored . . . heavy cardboard, pages bound in books or magazines. You can make them in seconds, for pennies, with the new A. B. Dick photocopy duplicator.

Every photocopy is an exact duplicate of the original —black on white for easy reading. Completely permanent, too, with all the handling and filing advantages of regular 24-pound paper. For further information—or a demonstration—call your distributor of A. B. Dick products. He's listed under Duplicating Machines in the classified section of your phone book. Or simply mail the coupon.

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Position_____
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City_____ Zone_____ State_____

as chief of the copy department, and in 1946 as executive vice-president in charge of all creative services.

III. Getting Things Done

In an advertising agency, brilliant campaigns don't spring so much from individual flights of genius as from teamwork. BBDO tries to organize its idea-making without regimenting it.

"This is the people business," says Brower. "Get them over-organized and they become gutless; under-organized, and they get lost."

BBDO's ideas can come from almost anywhere in the agency, but they are channeled to account groups. Each account (and some clients have several accounts, one for each product line) is serviced by a team that's almost a small advertising agency in itself. It is headed by one or more account executives; BBDO has about 350 account executives, aides, and supervisors. The account group has access to all the resources of the agency.

• **Higher Up**—With each group is a supervisor who cooperates with the account executive and also oversees his work. And each project is guided by one of a group of six account management supervisors, all of whom are directors of BBDO.

When the account executive has talked things out with the client and has drawn the advice he needs from sources within the agency, he writes a detailed summary of everything he has learned, together with specific recommendations for an advertising campaign. This plan, as BBDO calls it, goes to the Plans Board, the agency's court of last resort.

The board is headed by Exec. Vice-Pres. Bob Foreman; it includes the operating heads of all departments, plus one or two other top officers of the agency. It meets with account executives and analyzes every major detail of the work on each account. It must approve all recommendations before the client sees them.

• **Writing Copy**—The advertising copy, once the general plan has been approved, is turned out in Vice-Pres. Al Ward's copy department, manned by 125 writers. Ward organizes his writers in groups, headed by men who are in turn under six copy supervisors, each responsible for a general type of account.

Ward describes two basic BBDO approaches to copy:

• To avoid giving ads a distinctive BBDO character. Some agencies turn out ads—and successful ones, Ward admits—that can be quickly identified as their work, by tricks of art or copy. "We believe the client is entitled to his own look," says Ward.

• To develop a basic theme as

OFFERING THE PETROLEUM REFINING INDUSTRY...
UOP
Platforming
The Most Popular Process For Upgrading Gasolines
Reforming
The Ideal Process To Insure Your Top Octane Position
Penex
The First Practical Process For Upgrading Pentane And Hexane Fractions
HF Alkylation
A Catalytic Process For Producing Alkylate
Unifining
A Modern Process For Completely Purifying Petroleum Distillates
Fluid catalytic cracking
Vacuum distillation and visbreaking
Efficient And Economical Processes For Feed Preparation
Low-pressure coking
A Process That Adds Major Flexibility
Udex

the answer to most every petroleum processing problem is **somewhere on these pages**

Working out the solution to a processing problem can be a pretty tough assignment for any oil refiner. But this is a UOP specialty. And it's highly probable that UOP, with more than forty years of research and engineering development in oil refining technology, can come up with the right answer. The processes shown here have already answered many such problems, and they represent only some of the refining and petrochemical processes UOP makes available to all refiners anywhere. If you want to know more about these let us send you our illustrated, new 36-page brochure describing these processes more fully. Drop us a line on your company letterhead.

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30 Algonquin Road
Des Plaines, Illinois, U. S. A.

More Than Forty Years Of Leadership In Petroleum Refining Technology

ECONOMIC FACTS ON FASTENERS

COLD HEADING: A WAY TO CUT UNIT COSTS

● **Eliminates extra operations; faster than forging**

● **Metal flows to shape—without waste, without machining costs**

Here's a manufacturing fact often overlooked: The same machines that spill out large volumes of standard fasteners at surprisingly low cost can also produce *special* mechanical parts . . . also in volume and also at low cost.

It's surprising what an *expert* can do with cold heading machines. Some parts that would otherwise be two or more pieces are turned out as uniform, integral units. Parts that would otherwise require slower, costlier machining spout from the cold header with little or no scrap loss. What's more, the pieces are stronger.

Case Histories: (1) Eliminating double forging operation, high speed cold heading machine cuts and bends lengths from continuous rod to form shifter lever. It also gives greater strength, improved finish, closer tolerances. (2) Instead of a machined screw assembled with separate stamped screw driver shield, hose clamp screw is now cold headed in one piece. (3) No longer cut on screw machine, insert screw for plastics costs 40% less. Cold header uses just amount of metal required.

Call on the RB&W Fastener Man. He can tell you whether or not cold heading is feasible for producing your screw machine parts, forgings and small assemblies. If so, RB&W facilities can handle your volume needs. Russell, Burdsall & Ward Bolt and Nut Company, Port Chester, New York.

R B & W
113th year

Plants at: Port Chester, N. Y.; Coraopolis, Pa.; Rock Falls, Ill.; Los Angeles, Calif. **Additional sales offices at:** Ardmore (Phila.), Pa.; Pittsburgh; Detroit; Chicago; Dallas; San Francisco. **Sales agents at:** Milwaukee; New Orleans; Denver; Fargo. **Distributors from coast to coast.**

RB&W FASTENERS—STRONG POINT OF ANY ASSEMBLY

core of the advertising message. Sample BBDO themes: "Better Things for Better Living Through Chemistry" for du Pont, and "Once a Day, Every Day, Soup" for Campbell.

• **Picking Media**—The next basic job for the agency is to place the advertising most effectively in the various media. This falls on Vice-Pres. Fred Barrett's Media Dept. As media have increased (the coming of TV is one example) and advertisers have gotten more demanding about reaching the right audience for each product, this has become one of the most complex functions of the agency.

Last year, TV took the largest share of BBDO's billings—33%. Magazines took 21%, newspapers 19%, and radio 7%. TV has become so important that the agency has organized a separate TV-Radio Dept. with 200 people, headed by Foreman. This season, BBDO has 37 network TV shows for 16 clients.

• **Research Job**—Ben Gedalecia, vice-president and director of research, says BBDO itself is the largest user of his department's work. Some of his projects are of broad general interest in the agency, such as a recent study, with The Pulse, Inc., of national eating habits.

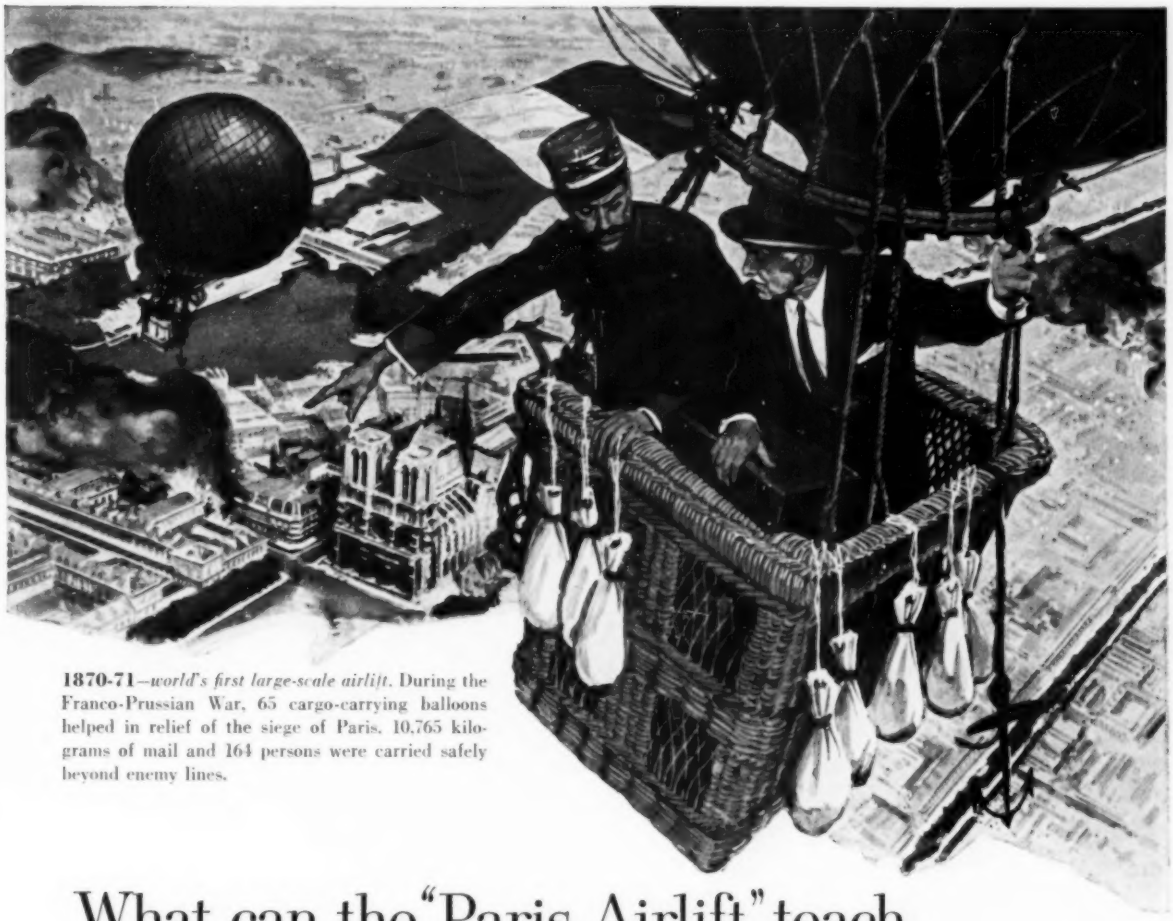
When new products are to be introduced, the marketing department under Vice-Pres. Ralph Head often begins cooperating with the client long before advertising preparation begins. For example, Head worked with Bristol-Myers when its Ban deodorant was still in the laboratory stage, helping the client to design the packaging, decide the matter of prices, and do test marketing.

• **Sound Strategy**—Like all big agencies, BBDO finds it increasingly difficult to expand by taking on new accounts. Products too often conflict.

One way agencies get around this stymie is to go after some other agency's large clients and drop their own small ones. But this is expensive. Account switching is a major agency hazard that has accounted for advertising's reputation for instability.

BBDO sees more stability in lining up clients who have growth potential, then helping them to grow. It seems to work: BBDO clients who accounted for $39-million in billings in 1946 had grown to $126-million by 1956.

BBDO has lost accounts. In last year's shuffle, it dropped Revlon and the Reader's Digest. But it has one client—F. S. Webster Co. (carbon paper, inked ribbons)—of 50 years' standing. It has held 30 clients for 20 years or more, eight for 15 to 19 years, 15 for 10 to 14 years. An industry estimate puts the life of the average agency-client relationship at five years; BBDO's average is 14 years. **END**



1870-71—*world's first large-scale airlift.* During the Franco-Prussian War, 65 cargo-carrying balloons helped in relief of the siege of Paris. 10,765 kilograms of mail and 164 persons were carried safely beyond enemy lines.

What can the "Paris Airlift" teach the chairman of the board?

If you are besieged by shipping problems, it will *pay* you to re-examine air cargo.

Today, overseas air cargo is more than emergency transportation. It is a way of doing better business, reaping greater profits.

These are the *facts:*

Now it is possible to ship by air for *less* than by sea. Air cargo saves on crating, has no "hidden" charges.

Swift air delivery opens new markets, spurs repeat orders, allows you to reduce inventory and eliminate overseas warehousing.

Air cargo shortens the gap between manufacture and delivery, smooths out production flow, speeds up payments.

And only Pan American offers the Pan Am Profit Lift—the most comprehensive service of ANY overseas cargo carrier.

Contact Pan Am, your cargo agent or forwarder—or write L. P. Cornwall, Cargo Sales Mgr., P.O. Box 1790, New York 17, N. Y., for the free booklet, "There's Profit in the Air."

ONLY THE PAN AM PROFIT LIFT GIVES BOTH SHIPPER AND CONSIGNEE ALL FIVE:

Fastest delivery to all the world. No other airline can match Pan Am's number of *direct* flights to and from all 6 continents of the world.

Fastest reservations. Space can be confirmed electronically in 4 seconds. Reserved or unreserved *all* Clipper* Cargo is *expedited.*

Most experienced air cargo carrier. Pan Am handles 71% more overseas cargo than any other airline. You get *expert* service all the way!

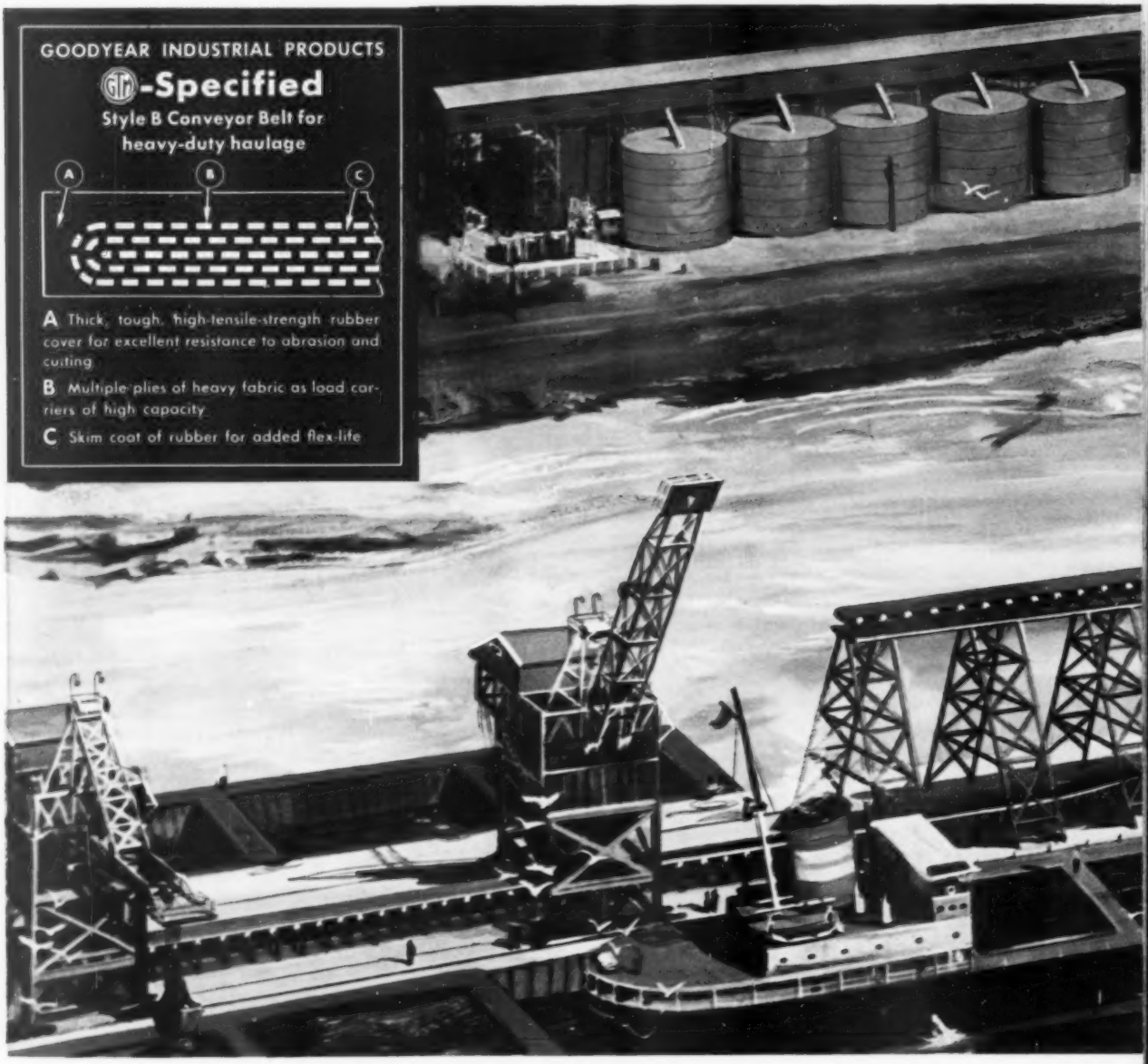
Most modern air fleet. Up-to-the-minute equipment includes pressurized and temperature-controlled planes for even the most "delicate" cargo.

"Doorstep" service from anywhere in the U. S. Just contact PAA, your cargo agent, forwarder or local airline. Pan Am does the rest.

PAN AM CLIPPER CARGO

FASTEST DELIVERY TO ALL THE WORLD

*Trade Mark, Reg. U. S. Pat. Off.


GOODYEAR INDUSTRIAL PRODUCTS
GT-Specified
Style B Conveyor Belt for heavy-duty haulage
A
B
C
A Thick, tough, high-tensile-strength rubber cover for excellent resistance to abrasion and cutting
B Multiple plies of heavy fabric as load carriers of high capacity
C Skim coat of rubber for added flex-life

HOW TO GIVE A RIVER'S

Even the most avid River Man would be surprised at the way the long-lazy Mississippi River is staging a surging comeback.

For too many years, the river's end seemed to be the end of the line. With bulk materials, in particular, the advantages of low-cost barge transportation were lost in time-consuming transfers from river- to ocean-going vessels.

What was needed was a practical means of breaking this river-to-Gulf bottleneck. And the answer came from a large, progressive, upriver coal company with an assist from the G.T.M.—Goodyear Technical Man.

A bridge of rubber—in the form of a unique, fully conveyorized, transfer terminal—was the new start in life they gave Old Man River. This super-efficient dock—utilizing

CONVEYOR BELTS by GOOD

END A NEW BEGINNING

big, directionally reversible, Style B conveyors specified by the G.T.M. for long, trouble-free life—can load, unload or store coal or other bulk material to the tune of 16,000 to 18,000 tons per day—and do it at rock-bottom cost.

If you're looking for the most efficient and economical way to handle any bulk material, you'll find the continuous flow principle of conveyor belts hard to beat. Why not get the full story from the G.T.M.? He's always available through your Goodyear Distributor. Or write Goodyear, Industrial Products Division, Akron 16, Ohio.

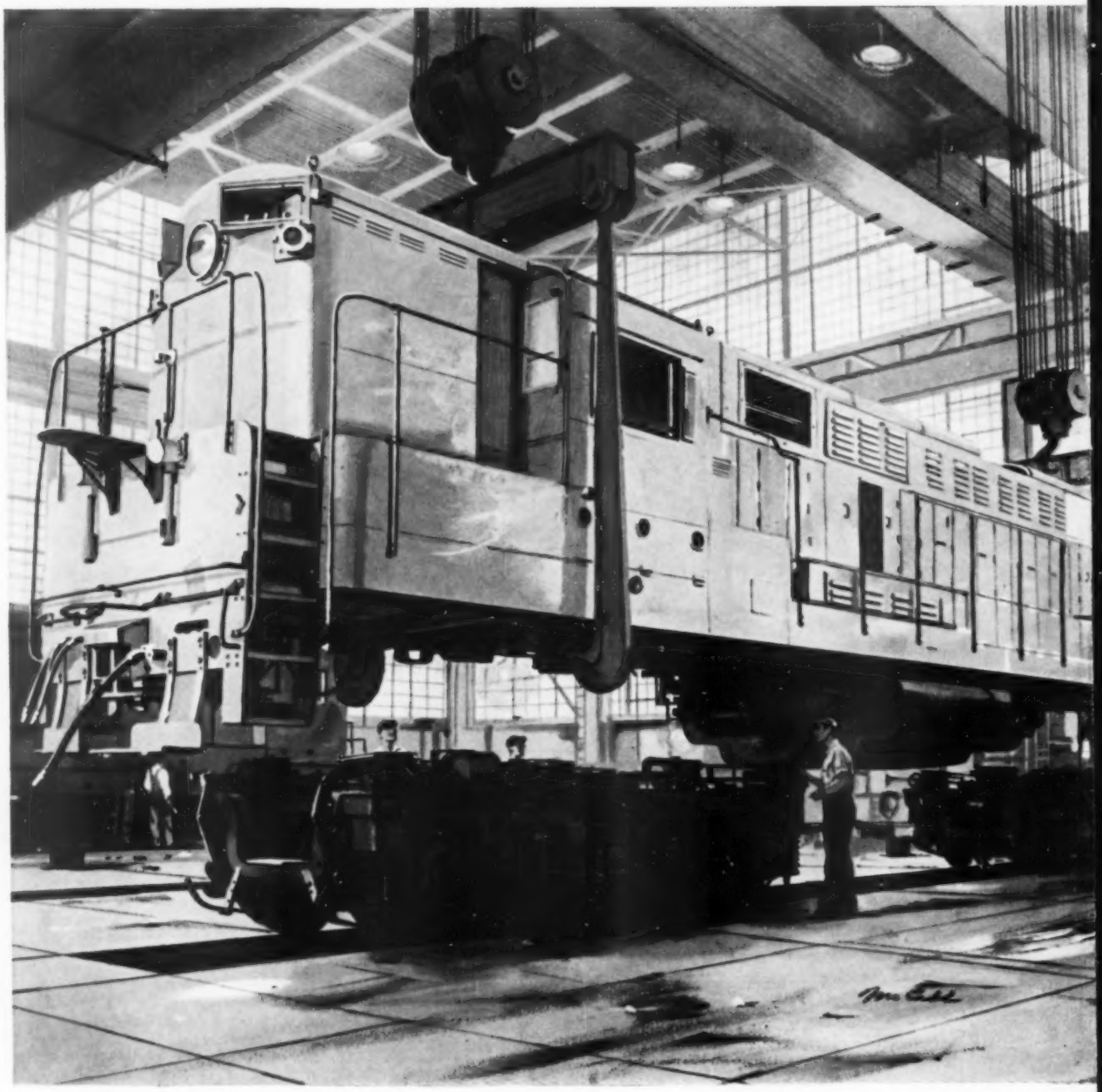
IT'S SMART TO DO BUSINESS with your Goodyear Distributor. He can give you fast, dependable service on Hose, V-Belts, Flat Belts and many other industrial rubber and nonrubber supplies. Look for him in the Yellow Pages under "Rubber Goods" or "Rubber Products."

Watch "Goodyear Theater" on TV — every other Monday 9:30 P.M., E.S.T.

GOODYEAR 60 GOODYEAR **THE GREATEST NAME IN RUBBER**

Correct Lubrication in Action . . . in the

Maintenance cost cut



Mobil

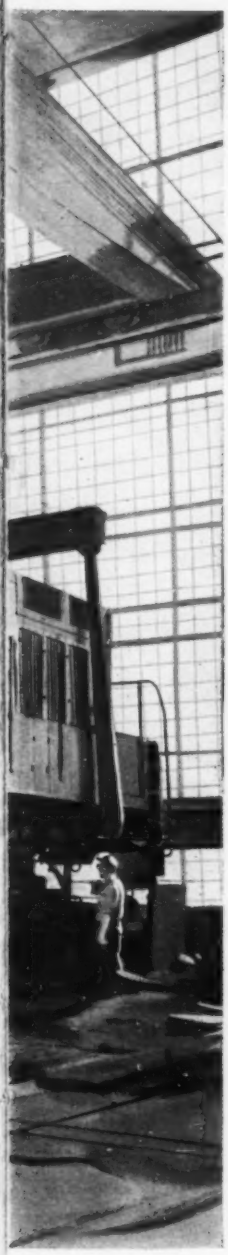
Complete Engineering Program
Proved Petroleum Products

Mobil

SOCONY MOBIL OIL CO., INC., and Affiliates: MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP., MOBIL OVERSEAS OIL CO., INC.

Heavy Equipment Industry!

$58,500 in one year!



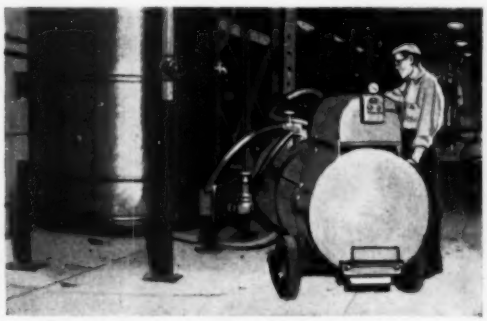
One of the many maintenance and production savings achieved by Fairbanks, Morse & Company with the help of Socony Mobil

In 1949, Fairbanks, Morse & Co. installed a Mobil Program of Correct Lubrication. This decision has continually paid off, as it can for you, by directly contributing to company profits.

To illustrate: First year after installation of a Mobil Program in the company's Beloit, Wisconsin plant figures showed machine repair maintenance costs were reduced 26.3 percent . . . $58,500. In fact, plant supervisors and Mobil engineers have co-operated so effectively under this service that today . . . nine years later . . . the Program shows continuing benefits, with the result that machine repair maintenance costs are now 49 percent lower than when the Program was inaugurated.

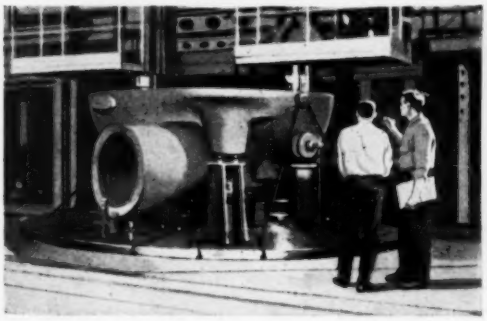
In dollars, this saving yearly is in excess of *twice the cost of plant lubricating oil requirements.* Here is another example of how Correct Lubrication in action can reduce maintenance costs and *increase profits.* It proved effective for this leading builder of heavy equipment. Why not for you?

In-plant training conducted by Mobil specialists demonstrates proper lubricant application and maintenance procedures . . . teaches Fairbanks, Morse personnel to recognize and prevent trouble before it results in downtime, repair costs.



Disposal of thousands of gallons of water-soluble cutting oils posed serious, expensive problem. Mobil recommendation of chemical separation process allowed disposal through plant sewage system . . . avoided stream pollution, saved substantial sum.

Control system cuts downtime:—Mobil lubrication charts cover plant's 2,300 machines . . . specify correct lubricants, lubrication periods . . . assure follow-through on application and maintenance.



High temperatures of Boring Mill way lubricant lowered viscosity . . . resulted in pressure drop, causing machine to stop. Mobil recommendation solved problem, allowed continuous operation.

Correct Lubrication

Another reason You're Miles Ahead with Mobil!

4,000 MENU ITEMS—Stouffer's stock in trade—cater to groups of people having the same gastronomical tastes.

Making a Profit on Every Bite

Stouffer restaurant's operating formula is almost as standardized as its soup du jour.

The recipes in the picture, stock in trade of Stouffer Corp., have one thing in common. They are all dishes that are calculated to appeal to people who come from different groups but who like to eat about the same kinds of food, and the same amounts.

The lunch that satisfies the average banker isn't likely to appeal to a steelworker on the job. But office workers, bankers, shoppers—diverse groups though they are—eat much the same.

By pinpointing groups with similar food tastes, Stouffer Corp., restaurant chain with headquarters in Cleveland, has built a $30-million business. This puts it about neck and neck with Horn & Hardart Baking Co., Philadelphia, for the No. 3 spot in the industry. (Frank G. Shattuck Co.–Schrafft's–is biggest of the publicly owned chains, with annual sales of over $50-million. Horn & Hardart Co. of New York is next, with over $45-million.)

• **Steady Rise**—As the consumer's purse has grown, so has the restaurant business. According to the 1954 census, there were about 195,000 restaurants doing a total of $8.3-billion. If you count in institutions and drive-ins, says the National Restaurant Assn., 1957's sales probably set a high of $17.5-billion.

Nevertheless, the industry could be better pleased with itself. Sales of eating and drinking places climbed 17% between 1951 and 1956. But consumers' outlays at food stores grew 23% in the same period. Many restaurants are going outside routine channels to shore up earnings, which in many cases are slipping.

Schrafft's and Horn & Hardart both have sold their products to take-home customers for some years. Schrafft's has gone in heavily for catering service for business institutions. Luchow's, famous old New York restaurant, is marketing some of its recipes through grocery chains (BW–Aug.11'56,p43).

• **Branching Out**—Stouffer's profit of $1.1-million for the year ended July 31, 1957, was its highest yet. This fact encouraged it to map its biggest expansion yet for 1958. With 19 restaurants now—mainly in Cleveland, Chicago, Detroit, and New York—it plans five or six more this year.

And Stouffer's, too, has diversified. It began marketing some of its recipes in frozen, cooked form through food stores on a wide scale in 1956. More recently, it set up a food service for institutions (BW–Apr.6'57,p73). But even in its diversification, it has kept

BUSINESSMEN like the Tavern Room, but order from the same menu as women in the main dining room.

OFFICE WORKERS at Stouffer-managed company cafeteria get same kind of food the restaurant serves.

HOUSEWIVES at supermarket stock up on frozen food line, among the chain's most popular dishes.

For what it's worth...

How reliable is the current ratio position?

from the CLIENTS' SERVICE BULLETIN
of The American Appraisal *Company*

Should a banker, passing on current loans, lift from the financial statement the so-called current assets and liabilities, and ignore the so-called fixed assets and long-term liabilities?

Businessmen who are obliged to borrow are conscious of the emphasis placed on a favorable current position. Yet, it is possible to maintain artificially, for a time, a favorable current position, by the policy adopted for reporting inventories, and by conserving cash through cutting maintenance expenditures. Earning statements may also be made to appear favorable by capitalizing borderline expenditures. This does not necessarily involve honesty or ethics; it is merely a question of attitude toward accounting and operating procedures. To make sure that current ratios and earning statements are what they seem:

1. Make sure that inventories are carefully checked and verified as to quantities and prices, and that proper consideration is given to obsolescence.

2. Determine whether buildings and equipment are modern and well maintained.

3. Ascertain whether a consistent policy governs the classification of expenditures between capital items and expense items.

4. Make sure that adequate property records are maintained to reflect the remaining useful life of the property items, and assure the recovery of original cost over the life of the items.

5. Determine what provision is made for replacement of assets acquired at lower costs, without impairing working capital.

We assume that cash and securities and accounts receivable will be checked most carefully. If equal care were taken in the verification of other assets, greater confidence could be placed in the earning and balance sheet statements. Certainly the general health or weakness of the enterprise would be much more apparent.

★ ★ ★

Continuous American Appraisal Service® gives management a "moving picture" of fixed assets; reflecting physical changes as well as fluctuations in value. It prevents under-insurance by providing current provable facts. It eliminates errors in property accounting. This is one of the services of The American Appraisal Company, leader since 1896 in property valuation for purposes of insurance, accounting, property control, taxes and corporate financing.

The AMERICAN APPRAISAL Company

SINCE 1896...LARGEST...MOST WIDELY USED

Home Office: Milwaukee, Wisconsin

Atlanta	Cincinnati	Kansas City	Philadelphia
Baltimore	Cleveland	Los Angeles	Pittsburgh
Boston	Dallas	New Orleans	St. Louis
Buffalo	Detroit	New York	San Francisco
Chicago			Washington

Affiliated: Canadian Appraisal Company, Ltd. Montreal and Toronto

The American Appraisal Company
525 E. Michigan Street
Milwaukee 1, Wis., Dept. BW

Without obligating me, put my name on the list to receive your Clients' Service Bulletins which discuss valuation problems.

Name.....

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Address.....

City.....*State*.....

its eyes resolutely on the market that goes for the items its restaurants serve.

The chain culls candidates for its frozen food line from the dishes that have proved specially popular among its restaurant customers. Its 4,000-item repertory is the source of the recipes it provides for institutions. But it won't go into factories.

This isn't snobbery, but just good business, its executives think. Management Food Service, the subsidiary in charge of institutional feeding, believes that if the company branched out into factory feeding, it would have to concoct a whole new series of recipes and methods of preparation. With a large institutional market still untapped, Stouffer's thinks such expansion wouldn't make sense.

• **Basic Recipe**—Once you have pinpointed your market, how do you make sure you satisfy it? Stouffer's formula boils down to four main points:

- Menus that appeal to the "white collar" group.
- Portions big enough for this group, but hardly big enough for the midday meal of a factory laborer.
- Uniformity of taste and quality.
- In its restaurants, a decor that aims to lure its special market.

• **Standardized Menus**—At the heart of the operation are those 4,000 recipes. From this recipe bank, the headquarters staff makes up daily menus consisting of a very small number of those dishes. All the restaurants (Stouffer's calls them stores) serve exactly the same menu at the same time.

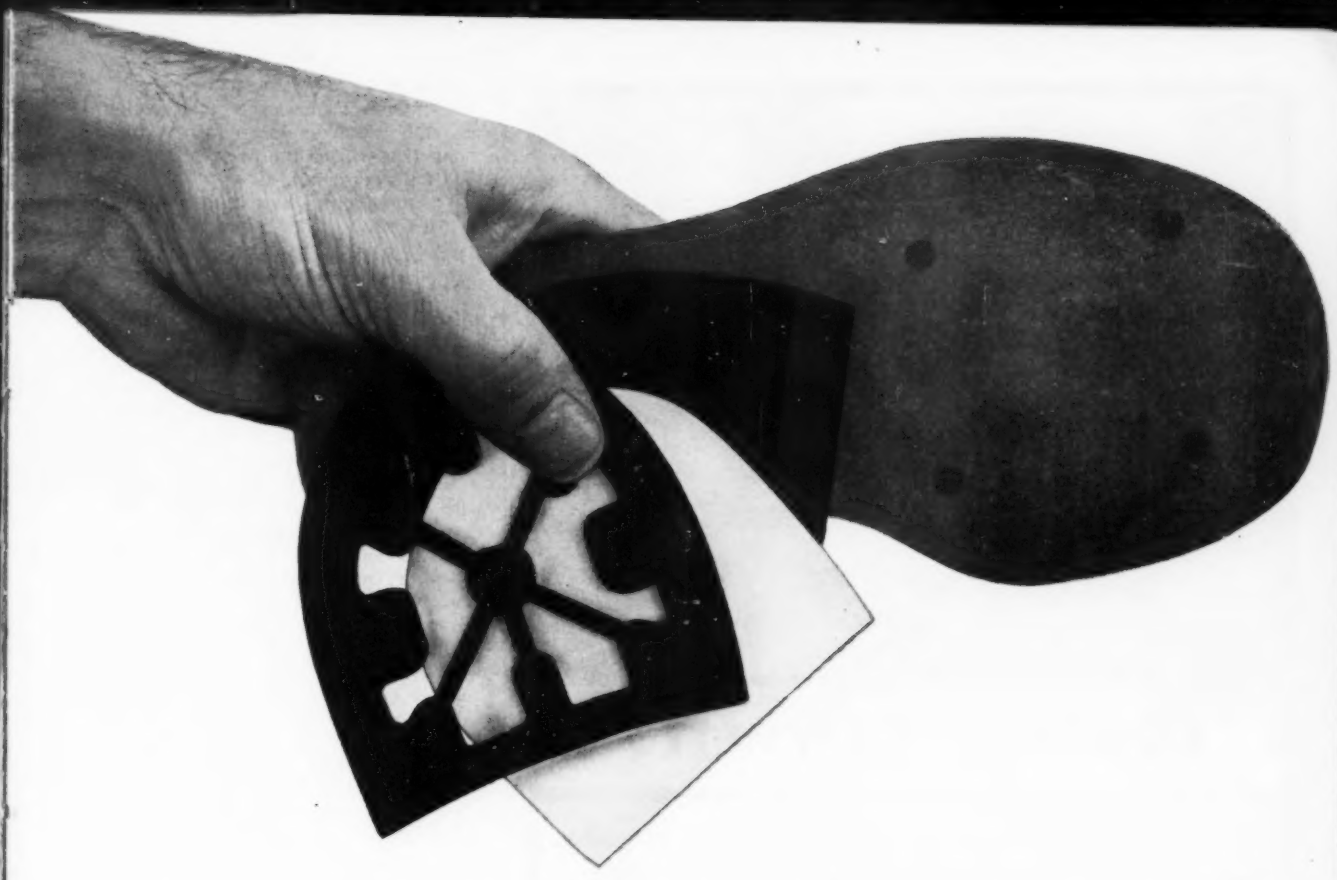
To make sure that a customer will get a Stouffer meal whether he eats in Cleveland, New York, or Detroit, the food preparation is standardized to the last ounce in size, to the last dash of salt in seasoning. As new recipes come out of the experimental kitchen in Cleveland, restaurants watch the customers' plates like hawks. If dishes come back with some of the food uneaten, they cut the portions a bit.

Since the company couldn't find commercial ovens that met its precision requirements, it set up a laboratory to design its own.

All this standardization and centralized control has a big added advantage: It cuts waste, ups profits.

• **Profit From Institutions**—The institutional service idea brings the company additional business with a minimum of investment. Stouffer's signs up an institution—First Pennsylvania Banking & Trust Co. was the first—usually on a straight fee basis. Stouffer's supplies a food manager and perhaps a few other personnel. But it doesn't have to provide the kitchens. The customer, for its part, gets access to the Stouffer file of recipes, and it gets the economies of centralized control.

• **Some Leeway**—Actually, the institu-



Shoe parts of **TENITE POLYETHYLENE**

offer better flexibility
easier workability
improved moisture resistance
longer life

Plastics are becoming more important every day in shoe construction. The midsole, Dutchman heel pieces, and heel base shown above, for example, illustrate new uses of Tenite Polyethylene by Endicott-Johnson Corporation, a leading name in the shoe industry.

Tenite Polyethylene is a plastic with properties useful to shoe manufacturers. It is light in weight and resists chemical attack, aging and moisture. It is easy to form; parts can be molded, or cut from extruded sheet. It can be supplied in colors.

Endicott-Johnson cite numerous benefits from their use of Tenite Polyethylene. Dutchman heel pieces, they report, formerly were made of fibre and leather. By using Tenite Polyethylene, they now have a material more adaptable to rounding and skiving, which permits production of better-fitting shoes. The new heel pieces also have greater flexibility and moisture resistance—two important considerations for any heel piece.

Their heel bases formerly were made of rubber. By switching to plastic, Endicott-Johnson feel that their new bases are more serviceable and that quality control has been made more precise.

Midsoles formerly were made of leather. Here again, the change to polyethylene has meant improvements in workability, flexibility and moisture resistance.

Today, many industries are using Tenite Polyethylene in place of traditional materials. Perhaps you, too, have a product that could be given improved performance or longer life if made of this versatile plastic. For more information, write EASTMAN CHEMICAL PRODUCTS, INC., subsidiary of Eastman Kodak Company, KINGSPORT, TENNESSEE.

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POLYETHYLENE
an Eastman plastic

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Whether you're building up or tearing down, these Hough-built tractor-shovels do so many jobs so well, you're apt to find them almost anywhere. They provide a combination of speed, work-ability and flexibility for any material handling assignment that is unmatched by any other type of equipment.

"PAYLOADER" units are available in a wide range of sizes (up to 9000-lb. carry capacity), with a full complement of attachments for every indoor or outdoor use. See your nearby Distributor and have him demonstrate a "PAYLOADER" tractor-shovel on your work. The Frank G. Hough Co., 700 Sunnyside Ave., Libertyville, Ill.

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Company
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State
11-A-7

tions have some leeway in their meals. Since Stouffers knows the exact cost of any dish it serves, it can figure out a menu that will fit the purse of the institution's personnel.

Restaurants, too, have a little leeway, though only a little. They cannot extemporize on a given menu, but a restaurant manager can make up the prescribed dishes in varying amounts, to take into account regional preferences. Experience has told the company that New Yorkers eat twice as many hard rolls as Pittsburghers. Two out of three men will order shrimp cocktail, but two out of three women will order fruit cocktail.

• **Backdrops**—The menu is the main path to an identifiable market, but decor is also an important route.

That's not to say that every room in a Stouffer restaurant looks alike. For women shoppers, Stouffer's may sport oil paintings and glass chandeliers. Another room may use a tavern decor, with the male customer in mind. Still another may go in for gaslight decor, with lowered ceilings, dim lights. Such an atmosphere often induces customers to rack up a larger lunch check.

• **Service to Match**—The Stouffer "girls" are an important adjunct to the decor. The company screens its employees minutely, says it pays higher than average wages to get the caliber it wants. Girls are told to study guests, and learn to cater to their special whims.

Thus a well-known judge has given his Stouffer's waitress standing instructions to bring him fruit salad and melba toast—no matter what he orders. A Pittsburgher always receives burned toast—he got used to it that way at home.

• **Family Tree**—The years have brought changes to Stouffer Corp. The chain got its first impetus back in 1923, when A. E. Stouffer, a successful dairy farmer near Cleveland, sold out his business, but kept his private farm. On his trips to the city, he had trouble finding what he wanted to eat. So he opened up a stand-up eating place in Cleveland's old Arcade Building. First items were buttermilk, crackers, and cheese.

One day his wife baked six of her favorite Dutch apple pies and took them to the store. By May, 1924, the family found itself deep in the restaurant business. Vernon Stouffer joined his father that year; his brother Gordon came in in 1929. Vernon is now president.

Vernon Stouffer doesn't like to predict the future. But he is thinking in terms of an expanded business. The frozen line already sells through over 8,000 retail stores. Ten concerns have signed up for the institutional service. The 1958 restaurant expansion is already under way. All this should spell more sales, more profits. **END**

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HALOID XEROX®

Miniature Precision Bearings executives—Leo Vogel, Purchasing Agent; William M. Scranton, Executive Vice President; Richard I. Kern, General Marketing Manager, and Horace D. Gilbert, President—at the start of a flight from snow-covered Keene Airport.

for safety...dependability...maintenance ease...economy

IT'S HARD TO BEAT THE Apache

Horace D. Gilbert

Miniature Precision Bearings, Keene, N. H., bought a twin-engine Piper Apache 10 months ago. Today, the plane has flown over 105,000 miles, transporting company executives swiftly and conveniently between Keene and points as scattered as Montreal and Miami.

Horace D. Gilbert, President of the company which manufactures more than 500 types of miniature ball bearings, says: "We find that the MPB plane substantially reduces our travel and delivery time. Just as important, the Apache enables us to get technical assistance to our customers, often in a matter of a few hours."

Example: The trip from Keene to New York, frequently made by MPB executives, takes six hours or more by car or train; by Apache, just a little more than one hour. MPB executives and technicians also appreciate the advantage of setting their own flight schedules, flying direct to smaller, more convenient fields than those served by airlines.

Stuart Jones, Miniature Precision Bearings' pilot, sums up his professional satisfaction with the Piper twin: "The plane's twin engines give us more dependable all-round operation with a high safety factor, and it's hard to beat the Apache's easy maintenance and low operating cost. My passengers like the Apache's speed and comfort, too."

Stuart Jones

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GOVERNMENT

Break for the Small Contractor

Weapons systems demand big-league management, but a company too small to win a prime contract by itself can head a team that can do it.

As new weapon systems get more complex and at the same time more specialized, something is happening to the pattern of defense business. Up to now, the prime contracts have gone to the giants of the aircraft and electronic industries—the mass producers who threw the smaller companies only the crumbs of low-profit, uncertain subcontracting work.

Now the small companies that have built up specialized knowledge and strong engineering staffs suddenly find themselves back in the running. Management of some of the new Buck Rogers weapon systems calls for just their brand of specialization, giving small business a broader foot in the Pentagon's door.

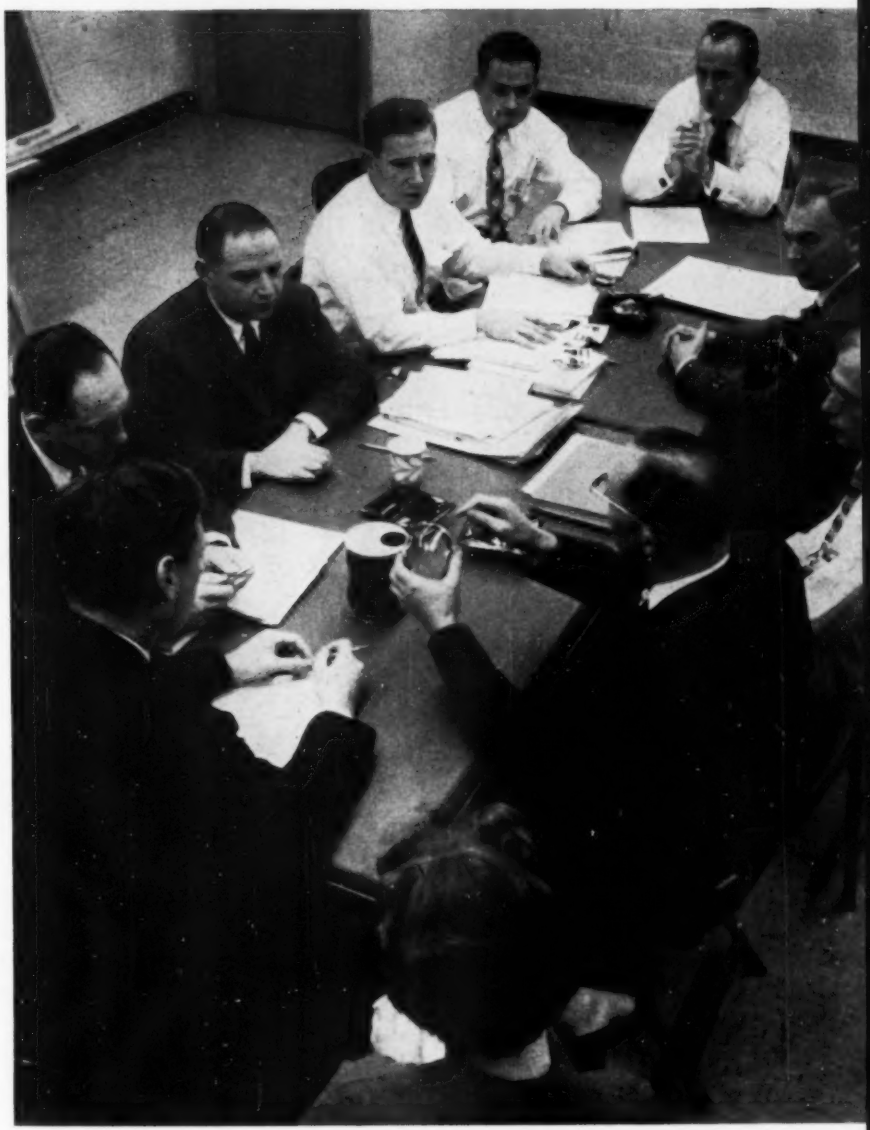
• **Two Contracts**—The key is the collective management or "team" approach. Last month, the Air Force awarded the second contract of this type to Hoffman Electronics Corp. as team captain to develop an airborne electronic reconnaissance system called "Tall Tom." The contract is worth $11-million.

Hoffman's team includes Stanford Research Institute; Sanders Associates, Inc.; Cornell Aeronautical Laboratory; Filtron Co., Inc.; Radiation, Inc.; Unitronics Div. of Siegler Corp.; and Lockheed Aircraft Services, Inc.

For six months, another team has been working on the Air Force's first major contract awarded on a team bid. That contract went to Stavid Engineering, Inc., a medium-small electronic company in Plainfield, N. J., as captain of a team including much bigger and better-known companies: Olin Mathieson Chemical Corp., Bausch & Lomb Optical Co., and United Shoe Machinery Corp.

Stavid's contract is to develop a defensive anti-missile system (DAMS) for bombers. The team survived the first phase of the task, the preliminary studies, and in December got a go-ahead for refinement of plans, assembly of "breadboard" demonstration models, writing of specifications, and laboratory testing. Production is still a couple of years away.

DAMS is described loosely as a multi-million-dollar project, but Stavid officials say that the project could run into "the hundreds of millions" if plans works out.



FOUR COMPANIES form the project coordination board: Stavid Engineering, Inc., the company that holds the prime contract for the team, and the much bigger, better-known Olin Mathieson Chemical Corp., Bausch & Lomb, and United Shoe Machinery.

• **Team Assignments**—Each member of Stavid's team was picked for a specified role: Stavid as system engineer and electronic specialist, Olin Mathieson in rockets and guns, Bausch & Lomb in optics, United Shoe in machinery.

David F. Sanders, Stavid's president and chairman, says the team concept is Stavid's way of "going along with the Defense Dept.'s procurement trends." The company got a turndown on another team proposal, a drone reconnaissance project in collaboration with Vertol Aircraft Corp., but is going ahead with a roundup of members for six other teams to submit collective bids to the Pentagon.

Another team bid is already on the fire, primarily awaiting word on how much the Pentagon will have to spend next year for tactical air force. The project is to develop an air-to-ground missile named "Lance," in team-

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I. Growth of an Idea

The team concept looks like the best way at the moment to take the curse off weapon system management as far as small business is concerned. Stavid's president sees it as a way to reverse the decline of small business' share of the military production dollar.

Until the supersonic age in the air, planes—and even the earliest guided missiles—were assembled by a prime contractor who usually built the airframe and then installed engines, armament, landing gear, electronic equipment furnished by the government and designed and built by other contractors. That meant there were a lot of prime contracts to be had, some of them small, for all the government-furnished equipment.

But as weapons got more complex, the military services, led by the Air Force, decided that control over weapons had to be more centralized. Subsystems, components, even plans for crew training and for bases had to be specially tailored for each weapon. The manager of the system had to have close control over each item supplied by other contractors.

• **Ways to Do It**—In the simplest arrangement, used for most aircraft, one company as prime contractor is responsible for the system. It farms out some work to subcontractors, builds the rest itself, assembles the product, directs crew training, and supervises all installation and maintenance.

However, the ballistic missile program of the Air Force, bigger and more complex than aircraft, puts all engineering and technical direction in the hands of one contractor, Ramo-Wooldridge Corp. (BW—Dec.28'57,p110), that itself does none of the production. Each missile then has a prime contractor for production: Douglas for the Thor IRBM, Convair for the Atlas ICBM, and Martin for the Titan ICBM.

Weapon system management for the Army's Jupiter IRBM and the Navy's Polaris IRBM, as well as several smaller missiles, is handled by special military agencies. This is in line with those two services' tradition of designing their weapons in government shops, archaically called arsenals or gun factories. The Army's Redstone Arsenal at Huntsville, Ala., for example, designed the Jupiter. Quantity production is farmed out to industry.

In all these methods, small business complains that it gets squeezed out of the profitable work. Many prime contractors, particularly whenever there's a defense spending pinch, take on work

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STAVID'S PRESIDENT, David F. Sanders, likes team management, where the small specialist can have an equal voice.

that used to be subcontracted. And the small companies have been in no position to bid against the big fellows for weapon system management.

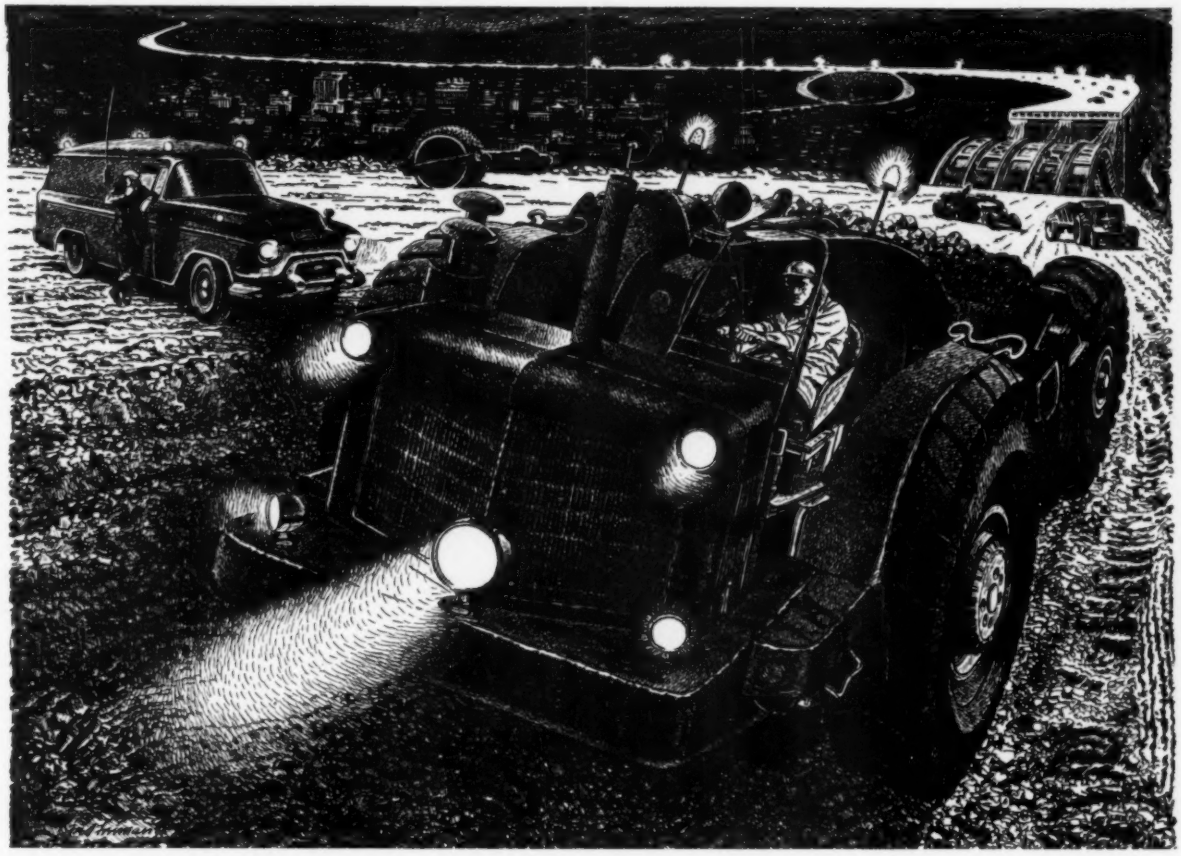
Under Stavid's plan, Pres. Sanders argues, the small specialist can have equal say in a team managing a weapon system, while the team commands enough prestige collectively to win a sympathetic audience in Washington.

II. Growth of a Company

Stavid was founded in 1945 in a two-room office across the street from a fish market in downtown Plainfield. David Sanders, a young Midwesterner with an electrical engineering degree from Cornell, joined two former fellow employees of Western Electric Co., David Rowland and Stanton Shackels, to form the company, coining its name from the partners' first names. Rowland and Shackels have since died.

The new company got itself a job to do—to develop a fire-control radar trainer for the Navy. From there it branched into other military electronics. Two years after its founding, the company grossed $316,000 in sales and netted $12,588. Last year, sales reached $10-million, with a net of more than $200,000. Sales this year are expected to hit $14-million.

• **Company Structure**—Today, the company occupies two new buildings on the outskirts of Plainfield, with a total floor area of 160,000 sq. ft. It has 940 employees, and one out of every four is a scientist or engineer. The company stresses the hiring of retired people. It employs, for example, seven former



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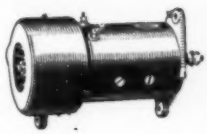
Earthmovers and other heavy-duty construction vehicles often work around the clock—with extra lights, two-way radios and other power equipment all getting full play. Top electrical demand like this calls for tough electrical equipment able to deliver high output regardless of dust, moisture, vibration or temperature extremes.

Delco-Remy's newly designed, totally enclosed shrouded generators, for example, more than meet the demand for high capacity and dependable, dust-proof operation —both essential in off-the-road service. In fact, Delco-Remy forced-air cooling makes it possible for you to get up to *twice* the former electrical output in the same frame size. Thus, when the right new Delco-Remy shrouded generator is teamed with a matching Delco-Remy regulator, the battery stays charged, is protected against over-charging and cycling effects.

New Delco-Remy double-output shrouded generators are available in 6- 12- and 24-volt types. Specify Delco-Remy electrical equipment, including the new longer life Delco batteries, for the new equipment you order, or when you modernize present equipment.



Model 1106921 is typical of a new series of totally enclosed, forced-air cooled d.c. generators, specially designed for earthmovers and similar off-the-road equipment. This 12-volt unit offers maximum output of 40 amperes at operating speeds.

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senior engineers of Bell Laboratories who were obliged to retire at 65.

Thirty percent of Stavid's stock is held by Sanders and the estates of his two fellow founders; another 30% is held by employees. In 1955, Laurance S. Rockefeller & Associates, the venture capital firm, invested $368,000 in the company. It now has 18% of Stavid's stock, and two Rockefeller associates sit on Stavid's board.

Presumably, the tie with Rockefeller helped Stavid to gain entree with Olin Mathieson, in which Rockefeller also has a substantial investment.

• **Defense Backlog**—All but about 5% of Stavid's backlog is defense work.

At least 90% of Stavid's military orders are prime contracts. About 60% of its total business is research and development; 40%, manufacturing.

• **Varied Work**—Stavid has 17 or 18 prime contracts covering all of the military services.

For the Army, Stavid makes a missile beacon telemetering system. For the Navy, it makes a submarine command guidance system for the Regulus missile, fire control systems, electronic beachmarking systems, and air-sea sonar data links. For the Air Force, Stavid produces a radar toss-bombing system and a subminiaturized radar beacon for the experimental X-15 rocket plane. This radar set is said to be the smallest ever made—only 2¼ in. wide, weighing 6 lb.

Stavid reportedly has an important role in the accelerated program to set up a ballistic missile detection system, but company officials decline to talk about the project.

• **Project DAMS**—Sanders doubts that DAMS, even at its peak, will ever make up more than 20% of the company's work load, but he is optimistic about its value. He hints strongly that it could be broadened into an active defense against ICBMs.

"The current project," he says, "is restricted to a defense against only two classes of missiles that the Air Force is concerned about. But our basic technological concept is applicable to the anti of any missile.

III. Working in Harness

Project DAMS is an outgrowth of an airborne missile defense project on which Stavid worked as a subcontractor until it was canceled in 1956. Last year, the company learned of plans to reinstate the project on a stepped-up scale, and it got Air Force approval to negotiate for the prime contract on a team basis.

"We didn't have the qualifications to get in alone," says Frank J. Reynolds, Stavid's vice-president for sales. "But we also felt that no other company could handle the job alone."

• **Forming a Team**—Stavid analyzed the project to determine its major technological fields, then went looking for the best-qualified companies in each field. It narrowed its search to three in each area and opened negotiations with them. By the time the Air Force asked for bids, the team was complete.

Reynolds stresses the importance of organizing the team well in advance of the formal invitation to bid. After bids are advertised, there isn't time to set up a team before the closing date.

In the case of DAMS, the four teammates spent a total of $250,000 in preparing their technical proposal to the Air Force. Each company fully disclosed its capabilities to the others. The formal proposal spelled out exactly which areas were assigned to each company and outlined the technical approaches that would be explored.

The Air Force awarded Stavid, acting for the team, a contract covering cost plus a fixed fee. The fee provided 7% profit on estimated direct labor and overhead costs, 2½% on materials, and an additional sum to Stavid as system engineer.

• **Coordination**—As prime contractor, Stavid receives progress payments and apportions them to other companies on the team. So far, Stavid has been retaining about 30% of the payments, but the shares of the other companies will increase when the project gets into the production stages.

Project managers from each company form a coordinating board that meets for two days each month (picture, page 97). On this board are Glenn Browne, Stavid's system manager; Dr. Karl Maier, assistant research chief at Olin Mathieson's Winchester-Western Div.; Fred Schaeffer of United Shoe Machinery, and Leon Foster of Bausch & Lomb.

• **Minimum of Friction**—Up to now, the group has operated smoothly. Two minor problems were ironed out by calling in upper management from each company.

"This is not like the usual prime and subcontractor relationship where a sub does just what he's told, without a voice in system engineering," Sanders points out. "In our setup, everyone has a part in writing the specs. Psychologically, we gain by giving our individual project managers a say in over-all decisions. The team controls the actions of all the companies."

Other people in industries that deal with the military services are keeping an eye on the Project DAMS team. Joint ventures are already gaining favor in the missile business (BW—Jan.18'58, p36), but the informal "ad hoc" team has some advantages. And, trade people say, if the small member of the team commands enough respect for its knowhow, there's little danger that its bigger teammates will snub it. END

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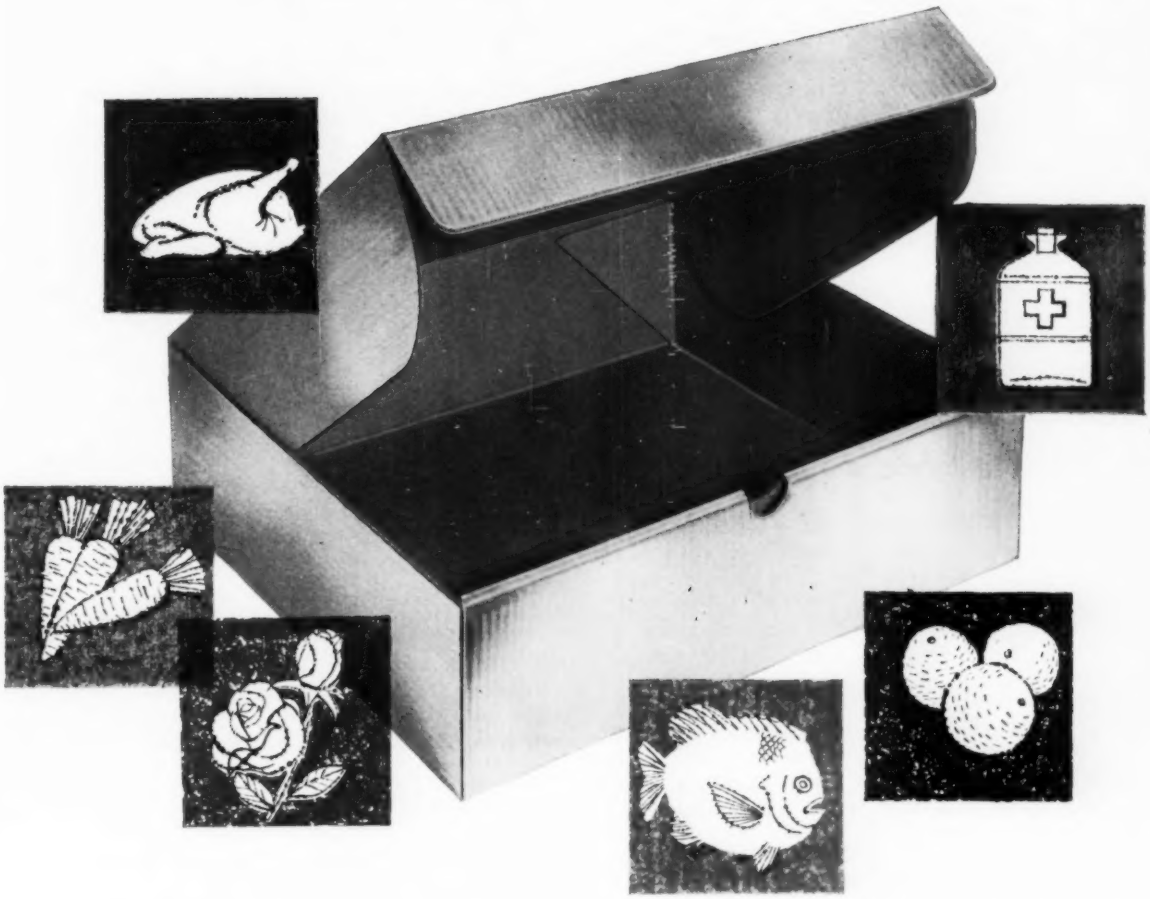

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ALTERNATE MONDAY EVENINGS

In Washington

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Tranquilizer Probe Aims at Stopping So-Called Advertising Abuses

The tranquilizer investigation that opened in Congress this week is aimed at the promotional activities of drug companies that supply ethical drugs to doctors. Rep. John Blatnik (D-Minn.), chairman of the House Government Operations subcommittee conducting the study, doesn't expect the hearings to produce any legislation. He sees the spotlight being focused on the practices of some drug houses in an effort to end so-called abuses.

Blatnik is critical of promotional material mailed to doctors that he claims tends to ballyhoo desirable qualities but minimizes or disregards side effects. He isn't talking about the technical information that drug companies first send to doctors, but to the follow-up literature designed to sell. The "sell," according to Blatnik, tends to obscure the scientific data.

• • •

Southern Ry. Firmly Opposes Federal Aid to Railroads

Truckers will get their chance next week to reply to the railroads' appeals to Congress for federal aid. The same subcommittee that last month heard more than 20 railroad presidents (BW—Jan.25'58,p34) will hear the truckers. In reporting last month's hearings, BUSINESS WEEK erred by quoting Southern Ry. Pres. Harry A. DeButts as saying: "We're not supporting [federal subsidies]; we're not opposing them." DeButts' statement referred only to a proposal that the federal government buy and lease equipment to the railroads. **In further testimony, DeButts said: "We are diametrically and positively opposed to subsidy in any shape, form, or fashion."**

• • •

House Extends Stopgap Tax Formula For Life Insurance Company Earnings

Congress is moving to extend for another year the stopgap formula for taxing the income of life insurance companies. The House last week passed a bill that would apply the same formula for taxing 1957 income as was used on 1955 and 1956 income.

The nature of the life insurance industry is responsible for the special tax treatment that has been in effect since 1921. One of the problems is that the companies must set aside reserves to meet future liabilities out of current earnings. But they can only guess at what those liabilities will be. In addition, 75% of all life insurance business is done by mutual companies whose earnings come from the investment of premiums.

The big difficulty in working out a permanent income tax formula has been the determination of what is a reasonable amount of reserves for meeting future obligations. The stopgap formula passed by the House permits companies to set aside 87½% of its first million of net investment income and 85% after the first million. The remainder would be taxed at the corporate rate.

The stopgap formulas have been computed on the basis of the industry's experience during the previous year. They have been in effect since 1948 and have been enacted to prevent a 1942 formula still on the books from going into effect.

Tax experts in Congress and in the Treasury are agreed that the 1942 formula is unsound. Based on 1957 earnings, it would produce taxes of $415-million against $291-million under the stopgap formula. But during the period of 1947 and 1948 life insurance companies would have paid virtually no tax. The formula is so closely related to interest rates that a fall in interest rates cuts the tax sharply without respect to earnings.

The Treasury has been trying to come up with a permanent formula to replace the 1942 formula for several years. **Secy. Anderson says his staff will be able to provide a permanent formula later in the year.**

• • •

Surplus World War II Lewisite Gas Will Be Dumped Into the Ocean

The government is getting set to dump some 3,000 drums of World War II lewisite gas into the ocean. This week the Navy, handling the disposal job for the Army, asked for bids on hauling 1,500 of the gas-filled drums from Sunny Point Army Terminal, North Carolina, and toting them some 600 mi. out to sea for dumping. Ocean depths at this point are over 6,000 ft. The rest of the gas will be shipped from Port Chicago, San Francisco, and dumped in the Pacific.

Although lewisite is classified as "extremely dangerous poison," the Army says it will be harmless at this depth even if the tanks should corrode and release the gas.

• • •

St. Lawrence Seaway Officials Solve Touchy Problem of Selecting Names

Three major construction projects in the St. Lawrence Seaway are sporting new names.

Two years ago, the U.S. Seaway Development Corp. renamed Robinson Bay Lock after Pres. Eisenhower. **This year New York Republican congressmen urged the naming of the second (Grasse River) lock after former House GOP Leader Bertrand H. Snell.** Snell, who died Feb. 2, was a seaway area resident and sponsored the first St. Lawrence bill in 1917.

But the plan ran into a snag. **Sen. Wiley, who sponsored the seaway law, wanted the second lock named after him and his co-sponsor, former Rep. George A. Dondero of Michigan.** He would not agree to the Snell Lock proposal.

Harassed seaway officials suggested renaming the 10-mi. Sault Canal the Wiley-Dondero Canal. Sen. Wiley and the New Yorkers accepted the compromise.

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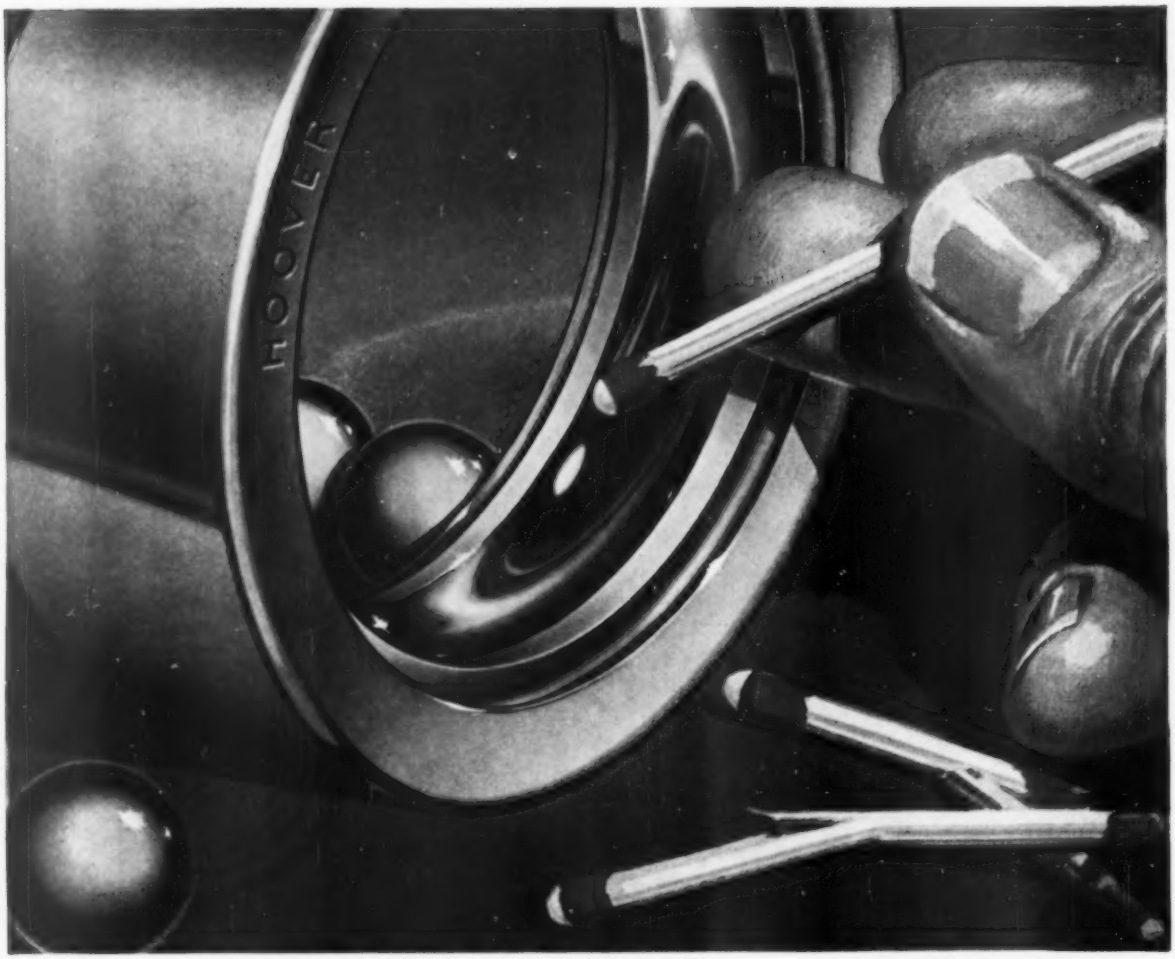

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BW-11

Banana Giant That Has to Shrink

United Fruit settled an antitrust score by agreeing to carve a competitor out of its own rich banana-growing empire (map).

By a timely consent decree, the United Fruit Co.—the world's largest company in the banana business—made peace with the Justice Dept. last week.

In July, 1954, antitrust lawyers had charged Unifruit with a variety of unfair practices, from special deals with independent banana producers to sales techniques involving restraint of trade. The complaints added up to one main charge—an alleged monopoly in producing, shipping, and selling bananas.

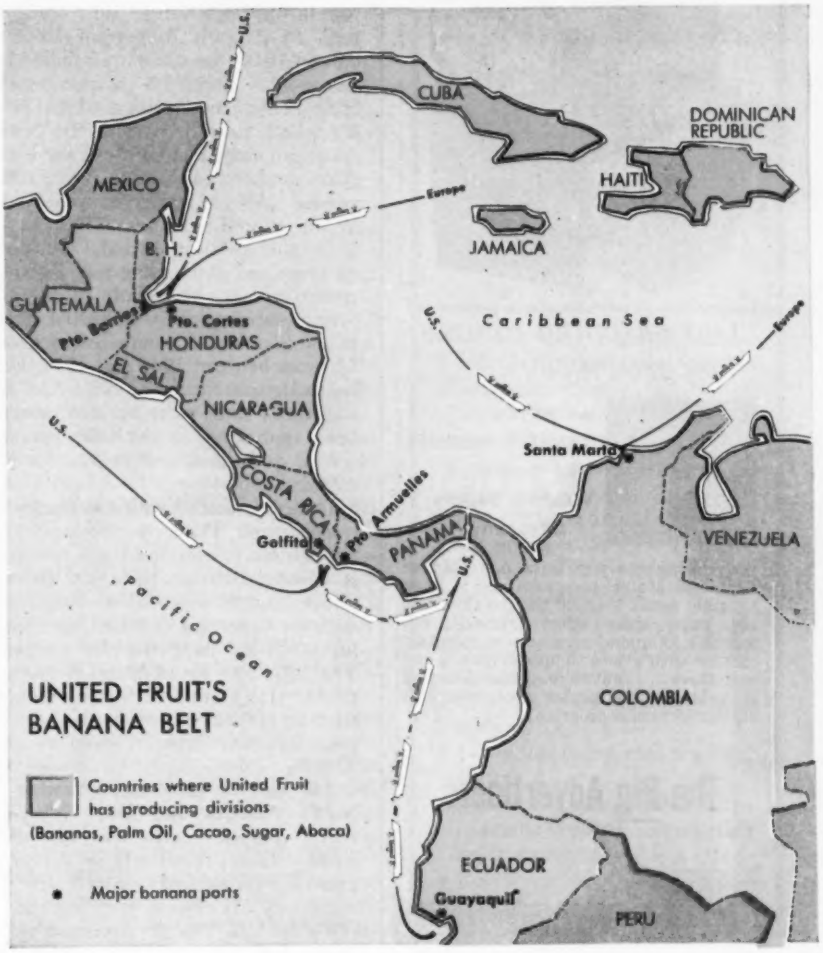
The company was vulnerable—and knew it. From its southern empire (map) stretching through Central and South America and the West Indies, Unifruit was supplying the North American market with 59% of all bananas consumed. The company's management in Boston realized that that statistic alone made it open game for trustbusters.

Now, with the consent decree accepted, the company is resting more easily. In essence, the decree keeps the Justice Dept. happy—without apparently forcing Unifruit to make an extreme sacrifice.

• **Justice's Requirements**—Last year the company imported roughly 25-million banana bunches or stems into the U.S. Under the decree, it must set up a new competitor big enough to import around 9-million stems annually—or around 35% of Unifruit's present imports. That's a little more than Standard Fruit & Steamship Co., Unifruit's nearest competitor, imports yearly. Since Standard Fruit is regarded as a "healthy" company, government economists figure the new company could be healthy, too, on the same level of imports.

The consent decree—still to be approved at Unifruit's annual meeting in April—requires the company to pick one of three plans by 1966 for setting up the new competitor. It can distribute stock in the new company to Unifruit shareholders, sell assets equivalent to 9-million stems to an outside buyer, or work out a combination of the two.

Under the first plan, Unifruit stockholders would still control the new company, thus seeming to cancel out the Justice Dept.'s aim of setting up a competitor to Unifruit. But the directors and officers of Unifruit now hold only 0.0045% of the company's 8.7-million shares. The rest is widely diffused. Thus, the government feels that a distribution of stock in a new company to Unifruit shareholders—coupled with the injunction requiring wholly different managements—still would mean, in effect, two separate companies.



• **Little Suffering**—While the decree looks like a sacrifice, it's unlikely to have much immediate—or even long-term—impact on Unifruit's over-all operations. Unifruit can plant an additional 9-million stems to compensate for what it loses—and most market projections indicate consumers would absorb the added output. Beyond that, the decree gives the company 12 years, until 1970, to create the new company.

I. Giant With Troubles

While the company has a powerful hold over the U.S. banana market, it's not quite so dominant in the worldwide banana trade as it used to be. And financially it has not been doing so well.

On the surface, Unifruit is a giant operation, so big that handing over 9-million stems to a new company would hardly seem to make a dent. Unifruit is a huge agricultural network integrated from banana tree to wholesale outlets. It employs roughly 95,000 workers—most of them in the tropics. It has innumerable subsidiaries, from the Chiriqui Land Co. in Panama to the Tela RR Co. in Honduras. For transporting bananas and its other minor commodities, the company runs a fleet of 61 ships. In the U.S., the Fruit Dispatch Co., the selling subsidiary, operates 43 offices; the Canadian subsidiary, five offices. For British and West European sales, it has a subsidiary in London—Elders & Fyffes—which also grows bananas in British African territories.

By latest count, Unifruit totted up

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sales of $342.3-million in 1957, with net earnings of $31.5-million. All told, the company's assets amount to $395.9-million.

• **Sad Statistics**—But in its relative share of the North American and European market, Unifrut isn't doing so well. In its early days—from 1899 to around 1910—the company handled between 72% and 85% of the banana trade to these two major markets. Now it's selling to only 59% of the North American market and 10% of the European market. In Europe, that's only around 25% of what it was before World War II.

In the postwar period, Unifrut's earnings and stock have not shown a particularly bright record. While the average earnings of 50 industrial stocks in the Standard & Poor's list increased 3½ times between 1946 and 1955, Unifrut's declined roughly 15%. And the company's stock value has not substantially appreciated in the same period.

You can find several reasons for this record:

Unifrut's costs have risen sharply in recent years. The welter of local services it now provides in Latin countries is a heavy drain on resources. Banana disease control is expensive. And rising costs for wages and materials have made life much less happy for the company. Ten years ago—for example—it cost between $1,200 and $1,500 to develop an acre of bananas—from plantings to port facilities. Now it costs roughly $2,000.

The size of the banana market in North America has been relatively static, compared with that for other fruits. True, consumers here spend around $527-million annually for bananas, eat 17 lb. a year per capita (10% of all North American fruit sales). But the consuming market, despite promotional efforts, is not expanding rapidly.

Unifrut has pushed use of polyethlene bags for selling. It has also helped many of the 1,600 banana jobbers in such tricky processes as ripening green bananas scientifically. But so far it has not come up with any significantly new ways of exploiting bananas—except as a fresh fruit. It's the one fruit only sold fresh.

Normally, Unifrut follows the usual routine of lining up customers for an entire shipload well in advance of arrival at dockside. That's the most profitable way of doing business in bananas. But recently the company has made an abnormally large number of sales from "rollers"—freight cars shunted inland for hundreds of miles, with banana sales made en route until the freight car is empty.

In price, bananas have held to a fairly steady level. Over the past 15 years,

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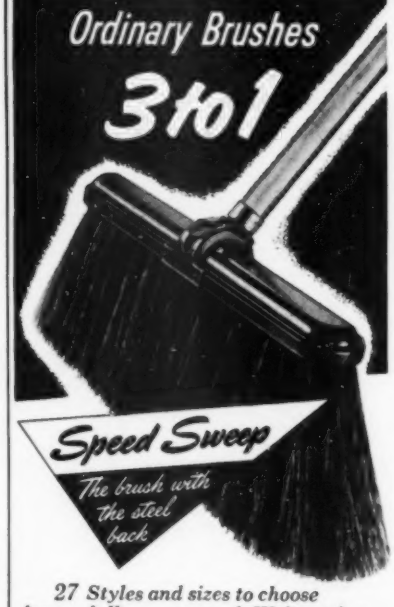

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bananas have followed the general price level of other domestic fruits—with no violent ups and downs like coffee and other commodities. Some industry experts feel that this situation partly answers accusations against Unifruit of using its strong market position to influence prices.

It's true that before World War II, the company set up the Meloripe Co. in Boston and the Banana Selling Corp. in Mobile, Ala., primarily as jobbers. To outside observers, this looked as if Unifruit was trying to hold a sword over the heads of the hundreds of independent jobbers and influence banana pricing. The company itself claims it merely wanted to help improve ripening and distribution methods. But in 1955 Unifruit got rid of Meloripe—"It was losing money, anyway," one executive claims. And as an outcome of the new consent decree, it's liquidating Banana Selling Corp.

• **Special Rates**—Beyond these factors, Unifruit's management has been described by one economic observer as one "less than aggresively imaginative." For instance, it utilized its 42.6% stock holding in Guatemala's International Ry. of Central America to get itself preferential rates on Unifruit Banana shipments from west coast plantations to ports on the east coast. It justifiably claimed it had helped build track and provide new rolling stock. But its position on rates was considered to be against the Guatemalan government and competing banana producers. Now, because of the consent decree, Unifruit must spin off its stock holdings in IRCA.

As for products, it's only in the last year that Unifruit has branched into a nonagricultural line—oil development on a 1-million acre concession in Panama.

II. How to Grow Bananas

If Unifruit is not diversified—in the usual sense—it's nevertheless thoroughly dispersed over a huge area. That's probably its biggest advantage over competitors.

To understand why this matters so much, you have to look at the peculiar nature of the banana business itself. It is essentially one long series of calculated risks.

Just to grow a banana tree is not so difficult. All you need is a tropical climate and lots of water. But that's only the beginning.

You have to get the stems cut while green and ships loaded rapidly at exactly the right time. That requires smart decisions and special handling to prevent scarring or bruising the bananas. A bruised banana is virtually unsalable.

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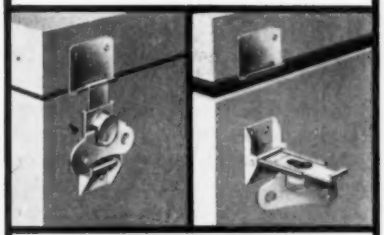

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problems—for instance, weather conditions. In the past 10 years, blowdowns—the banana planter's name for windstorms—have destroyed roughly 20% of Unifruit's total production. In 1954, floods that followed a 65-day strike of workers in Honduras paralyzed the company's entire operations in the country for months. Last year—just as Honduras was returning nearly to normal—a blowdown struck plantations.

In addition, banana diseases have ravaged plantations. Since the early 1930s the so-called Panama disease, which can totally destroy banana trees, has become a full-scale scourge. In 1939, Sigatoka, a leaf blight, began adding new troubles. In one year alone, it ravaged 80% of Unifruit's banana plants in Honduras. To control these diseases, Unifruit uses sprays, "flood-fallowing" techniques, and new plantings of more disease-resistant types of bananas—though these types may not sell quite so well in the U. S.

To top it off, in Central and South America politics is a special hazard. Unifruit has had a long history of labor troubles in Honduras. In 1953, the Communist-dominated government in Guatemala suddenly expropriated 234,000 acres of Unifruit properties.

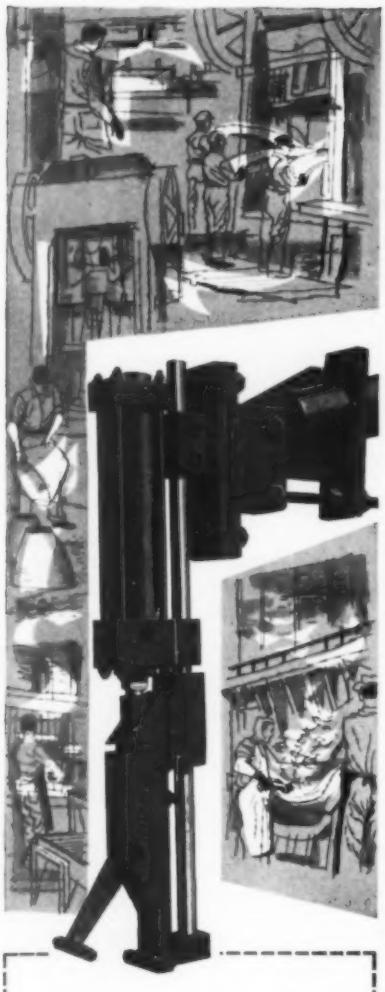
• **Several Sources**—To hedge its risks, Unifruit is not only spread through many countries, but also gets its bananas in several different ways. It buys on the spot market from smaller producers—especially in Ecuador, now the largest exporting country for bananas. The company also has an increasing number of contracts with large, independent banana producers.

Still, Unifruit's main source of bananas is its own plantations—some 137,000 acres supplying 75% of what the company sells. (Unifruit has another 141,000 acres for palm oil, acaba, sugar cane, and other products—plus 262,000 acres not under cultivation.) Most of these plantations are near the Atlantic Coast, convenient to markets along the U. S. East Coast and Gulf area.

III. The Giant's Career

While the banana is still by far the largest money earner for Unifruit—as it always has been—the character of the company has changed somewhat through the years.

Unifruit grew out of the Boston Fruit Co., formed in 1885 by Lorenzo Dow Baker and Andrew Woodbury Preston. These Bostonians owned banana acreage in Jamaica, bought control of three rival companies, and then picked up 40,000 acres in the Dominican Republic in 1898. When blowdowns damaged its plantations, Boston Fruit went looking for new properties. Minor C. Keith, an American entrepreneur, owned some 250,000 acres of banana



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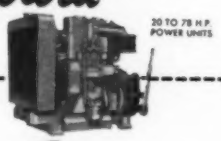

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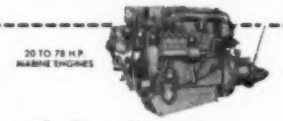

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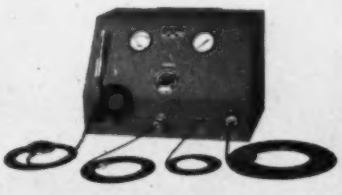

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Western Office: 1839 West Pico Blvd., Los Angeles 6, Calif.

land strung along the railroad he had started in Costa Rica. He joined with Boston Fruit in 1899 to form United Fruit Co.

• **Turbulent Past**—Unifruit's early history is both colorful and controversial. It used rigorous methods frequently to deal with unstable Central American governments. Its reputation in the 1910s and 1920s is something the company has a hard time living down. But part of the trouble stemmed from the U. S. government's own policy of intervening in Central American politics—with troops and "big stick" pronouncements.

While Unifruit often seemed to make pawns of Latin governments, it got a little of the same treatment from another source—Russian-born Samuel Zemurray. The Cuyamel Fruit Co., which he had founded in Honduras in 1905 to export bananas, gave Unifruit a real battle. By 1929 Unifruit bought off Zemurray for $31.5-million. Three years later it made him president, partly to get his dynamic help in lifting the company out of depression-born troubles. In 1951 Zemurray stepped down and retired to New Orleans. In a sense, his departure from the scene—with Kenneth H. Redmond, a long-time company employee, replacing him as president—marked the end of a profitable but stormy era for Unifruit.

• **Liberal Role**—Recently, involuntarily in some cases but often voluntarily, the company has revamped old practices in favor of more modern ones. It has built a string of 18 hospitals, 104 dispensaries, and 250 schools for employees. It instituted a liberal labor code in 1954 that operates throughout the company in every country. It has not asked for so much special treatment in long-term contracts signed with the governments of countries in which it does business.

Unifruit's very size makes it a boon to local economies—as well as an occasional target for criticism. In 1956, the company's estimated contributions to all the 12 countries where it operates amounted to $124.2-million—including $73.6-million in salaries and wages and $8-million in income taxes (which it never had to pay until the postwar period).

In fact, both liberal and conservative governments in Central America have generally stopped making Unifruit a whipping boy for their economic troubles. Their reaction to last week's consent decree was mostly worry rather than great glee. They dislike Washington's somewhat arbitrary arrangement for Unifruit to set up a new competitor, on grounds that this solution disregards their own thoughts on the matter. And—more important—they fear a possible loss of revenue from any cutback in Unifruit's operations. **END**

How one school saved $130,000 by using WOOD

The people of Westminster, S. C., are proud of their new high school shown in the above photograph.

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MAGLI shoe fashion show, a yearly event at the villa of Pres. Bruno Magli, is attended by buyers from all over the world.

Italian Shoes Go International

Women's demand for high style has raised a national handicraft to status of big export business.

The worldwide vogue for the pointed-toe, narrow-heel shoe that—say podiatrists—is creating a generation of hobblers has rolled up into a big business for Italian cobblers. Among the leading designers and manufacturers who have encouraged the "stiletto" look is Bruno Magli, one of the founders of the family-owned Magli Shoe Co. of Bologna.

The Maglis began turning out handcrafted shoes in the basement of their home in 1928. By 1938, the company was using about 30 machines and employed about 80 workers. During the war, Magli went underground to protect its machinery. In 1948, it built a new factory and tackled exports.

"Before the war," says Bruno Magli, "Italians believed that anything that looked Italian was necessarily inferior. Now, I am happy to say, foreign shoemakers come here to study our designs."

Last year, Italy exported more than 500,000 pairs of female footwear to the U. S. alone, and registered total export sales of $14.5-million during the first six months.

DESIGNER Marino Magli creates some of Italy's most fashionable shoes, supervises production. By spring, the company expects to boost output to 1,500 pairs a day.

STOREROOM houses thousands of pairs of shoes to be shipped to exclusive shops throughout the U. S.

KITCHEN doubles as workroom for woman who "takes in" work. Her job is to sew in linings, add any ornamental stitches.

In Business Abroad

• • •

Europe's Steelmen Cut Export Prices; Ruhr Foregoes New Boost on Coal

With the world market for steel softening day by day, steel producers within the European Coal & Steel Community have agreed privately to reduce prices for exports to non-member countries. For such business the minimum price for structural steel has been cut from $112 a ton to $84; for other types of bar steel the drop is from $118 a ton to $101. Price reductions for heavy plate and shipbuilding plate are still under negotiation.

Meanwhile, a substantial decline in fuel oil prices has forced Ruhr coal producers to drop their plans to follow up last fall's coal price rise with a heftier increase Apr. 1. The drop in tanker rates since the Suez crisis has brought down the price of fuel oil in West Germany by an average of 30%. This, plus local price wars in many cities, has led many industrial and private customers to switch from coal to oil. **So Ruhr coal stocks now are accumulating at an unexpected rate.**

• •

Mexico to Produce Canadian Plows, Maybe Italian Sewing Machines, Too

Mexican interests are hoping to get Necchi of Italy to establish a plant in Mexico that would produce up to 30,000 sewing machines a year. **At present, U. S.-made Singer machines have the largest slice of the Mexican market.** Necchi is introducing a new, lightweight, straight-stitch machine to the world market this year, and might someday produce this in Mexico.

There's no doubt, however, about the $500,000 plant that Cockshutt Farm Equipment Ltd., oldest farm equipment producer in Canada, is slated to build in Mexico for production of plows, planters, and other types of small farm equipment. Ultimately this plant, to be located either in Monterey or Saltillo, will assemble made-in-Canada tractors. Cockshutt is making the move in anticipation of a jump in Mexican tariffs on farm implements.

• • •

Proposed Amendment to Tariff Treaty Gives Domestic Industry a Tax Break

A new wrinkle may be added to the coming Congressional fight over extension of the Reciprocal Trade Agreement Act. The Committee for a National Trade Policy, which favors extension of the act, and pro-RTA members of the House Ways & Means Committee are pushing for an amendment that would provide for compensation to domestic companies and workers actually injured by import competition. **The proposed amendment would set up a "Federal Trade Adjustment Board" to handle all claims for compensation.**

The Trade Adjustment Board idea itself is not new. Both the Committee for a National Trade Policy and Steelworkers' Pres. David McDonald recommended it several years ago to the Randall Trade Commission hearings. Four bills authorizing such a board are now pending in Congress. And last week, the AFL-CIO officially endorsed the idea at its Miami convention.

The board would work this way: If a company or segment of an industry proved actual injury from import competition before the Tariff Commission in an escape clause case, it could be compensated by tax benefits and outright loans to its owners and employees to help them adjust to a new line of work. Details of the board's organization and operation have not yet been drafted into a firm legislative proposal.

Supporters of the trade act extension believe that the amendment, by providing compensation for injured industries, would ease the way for passage of the extension bill. So far, the Administration has refused to sponsor the amendment. But liberal traders say it would be accepted by the White House if it should be voted out of the Ways & Means Committee as part of the trade bill or in a legislative package together with RTA.

• • •

Nehru's Cabinet Feels Repercussions Of Scandal Over Misused Insurance Funds

In India, the scandal over alleged misuse of funds by the nationalized Life Insurance Corp. is rocking Prime Minister Nehru's cabinet and the hitherto do-no-wrong Indian Civil Service.

Already, Finance Minister T. T. Krishnamachari—one of India's top economic planners and recent visitor here to obtain new U.S. loans—has handed in his resignation.

In 1956, New Delhi nationalized private insurance companies because of purported "misapplications" of insurers' funds. In their place, the government set up the Life Insurance Corp.

Last December, no less a figure than Feroze Gandhi—a leading member of the ruling Congress Party and Nehru's son-in-law—opened a Pandora's box of charges against LIC. LIC allegedly had bought around $3-million worth of shares, at inflated prices, in six companies owned by Calcutta financier Haridas Mundhra. The companies themselves were purportedly in bad financial shape. Closely involved in the stock purchases were Krishnamachari and his finance secretary, who had been LIC's chairman.

This week an inquiry commission wound up its investigation, after hearing a parade of prominent witnesses including Krishnamachari and Mundhra.

New Delhi apologists claim the LIC purchases helped relieve the drag of depressed Mundhra shares on the Calcutta stock market and prevented several Mundhra concerns from folding up and putting 40,000 Indians out of work.

In any case, the scandal is raising all sorts of questions about India's middle course between full-fledged Socialism and private enterprise. LIC's misuse of funds is ammunition for critics of government-run agencies. At the same time, Mundhra's speculative investments are a fresh target for proponents of Socialism.

No. 2 in a series

Right off the Wire

A double submarine cable, 2400 miles long, gives direct telephone service between California and Honolulu. It reaches ocean depths up to 3½ miles. Simplex manufactured 60% of the cable.

Dissimilar, non-ferrous metals, including aluminum, copper, magnesium, titanium, brass, zinc, silver and gold can now be bonded by a new ion-exchange process.

Doppler radar, installed in aircraft, is being tested by commercial transport planes. If satisfactory, it is expected to have far-reaching effects on civilian navigation.

By using a 3800-gallon bag of rubber-coated rayon to contain liquids, a truck trailer can now serve a double purpose. Various linings make the bags suitable for corrosive or edible liquids. It is planned to make them in larger sizes for barges or storage.

A new pencil feeds lead automatically to maintain the correct writing length.

A new low-temperature laboratory is equipped to produce fifty quarts an hour of liquid hydrogen at −423°F. and eight quarts an hour of liquid helium at −453°F.

A color-video tape recorder-player has been announced.

A new off-shore drilling platform is able to operate in 600 feet of water. Present equipment is limited to about 100 feet.

A model of an ion-propelled rocket has been exhibited. Theoretically it should have an efficiency of 90 per cent and a speed of 25,000 miles per hour. Power would be derived from a nuclear reactor.

A mechanical construction kit for adult tinkerers contains 5,000 parts. It is claimed that a working model of almost any machine can be built with it.

One of the new European cars has three headlights mounted side-by-side behind a screen of curved glass. The middle lamp is pivoted and turns with the wheels.

A single drop of a new adhesive, used to join two pieces of metal, has supported a load of 5,000 pounds.

Paint that changes color at high temperatures is being used in oil refineries as a safety measure.

Man-made lightning, to test insulated cable, is produced by the new 1,400,000-volt impulse generator in the Simplex research laboratories.

A new fuel for jet and ramjet engines has a boron-hydrogen base and should increase the range of aircraft using it by forty per cent.

A new kind of "electric eye" uses radiation from a small amount of strontium-90 instead of an electric light. It requires no power supply and is not subject to interference from dust or smoke.

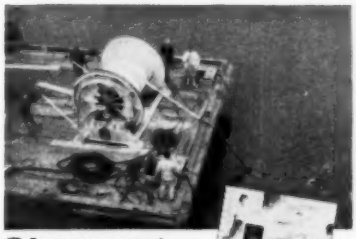
A twenty-five acre business center, being built in Venezuela, is in the form of a helicoid. It will be 365 feet high and access will be by a spiral ramp. At the top will be a 170-foot aluminum dome housing an exhibition hall and television station.

A generator has been designed that produces electric power directly from the chemical reaction of hydrogen and oxygen.

Since 1950, over 4000 miles of cable protected by Simplex C-L-X type sheaths have been put in service. No sheath failures have been reported.

A new eighteen-pound refrigerator will operate for fifty hours on a bottle of propane gas, or indefinitely on household current.

The problem of shipping giant transformers by rail has been minimized by making the transformer the central part of the car. Both height and weight are thereby reduced.



Of current interest:

Recently, Simplex had the pleasure of publishing a new book called TRANSOCEONICS, depicting the historical development of underseas telephone cables. If you have read TRANSOCEONICS, you will recall the magnitude of some of the projects undertaken by Simplex.

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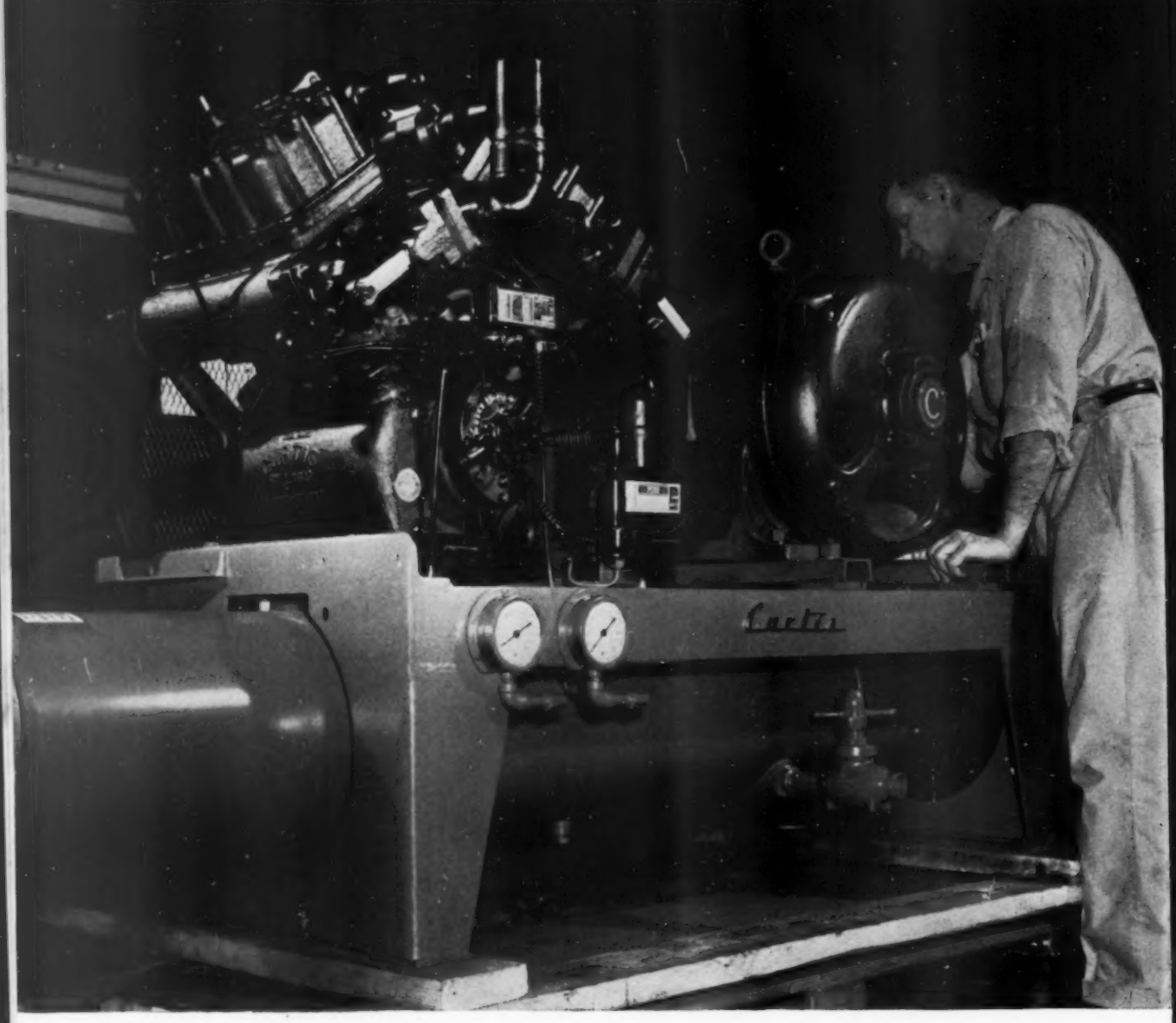

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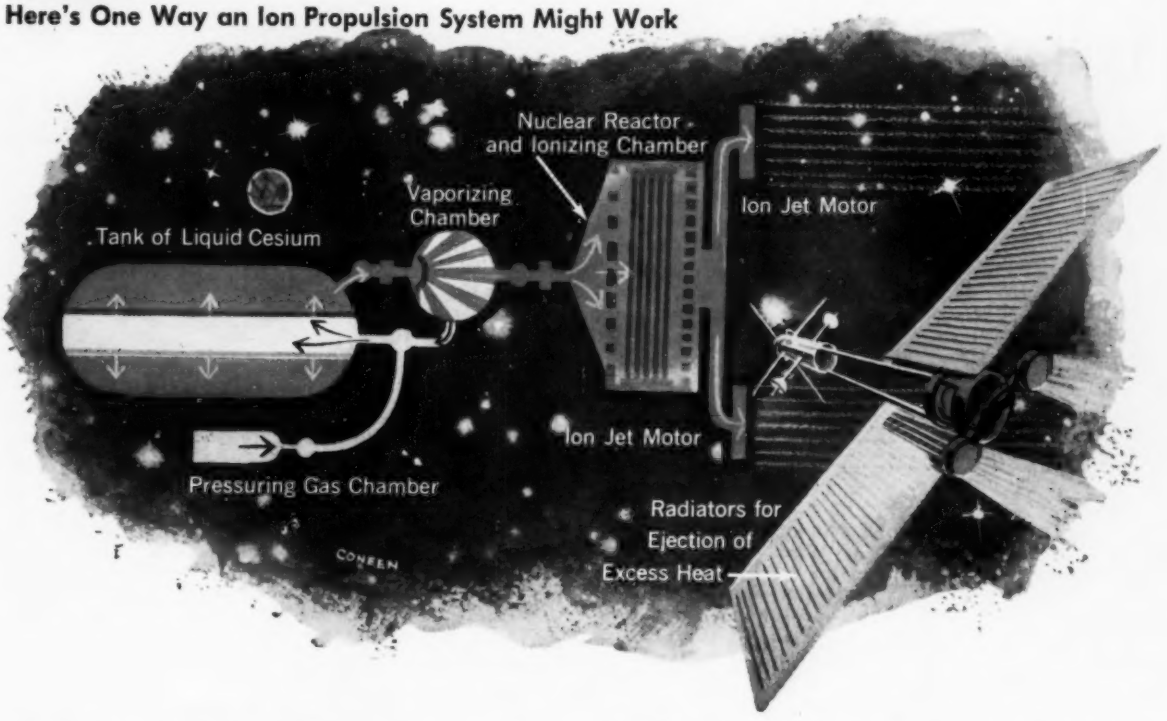
Here's One Way an Ion Propulsion System Might Work



How to Speed a Ship in Space

The rocket that first takes man to the moon may well draw its power from the ion—an electrified atom bursting with energy—in a system such as shown above.

Now that the first U.S. earth satellite has been successfully fired, attention is turning to schemes to transform other fantasies of science fiction into fact. Trips to the moon—and eventually into outer space—seem less outlandish than ever before. In fact, among the half dozen latest projects submitted to the Defense Dept. for study, there's now a plan for a 20-ton satellite, presumably manned, to do duty as a wayside inn and repair station for travelers in space.

But for all their present enthusiasm, scientists are the first to admit it may be 10 years—or even a generation—before man starts whirling into space as casually as he now hops from coast to coast. Too many problems still need solving. It's one thing to fly in a high-speed manned rocket between two points on the earth's surface, quite another to orbit for a long period of time or shoot off to outer space, because the problems in outer space travel are immensely more complex. One of the seemingly simple, but greatest worries that scientists face, for example, is the matter of propulsion.

• **Obvious Demand**—The classic conception of a space ship for exploring the heavens has always been a multi-stage chemical rocket so big it approaches the size of the Washington Monument. To sustain its human crew, it would need to carry its own atmosphere, plus many tons of food and equipment—and enough fuel to reach a destination and return to earth.

Conventional fuels would weigh so much in the quantities required that it's ridiculous to consider them. Experimental sources of energy, such as free radicals (BW—Sep.7'57,p111), would be enormously expensive to exploit and would probably prove practical only for the shortest space flights anyway. The obvious need is for a cheap, lightweight propulsion system suitable for tomorrow's space ships and still feasible with today's technology.

• **Likely Candidate**—One of the hottest prospects to take the job is the ion—an electrified atom that's smaller, faster, and much more powerful than any of the molecules whose action gives conventional fuels their kick. In an ion propulsion system of the type depicted above, the thrust would come from the violent antics of the ions bouncing madly around in a chamber with only two exits—the narrow jet exhaust.

The system in the drawing is the Snooper, devised by two scientists for the Rocketdyne Div. of North American Aviation, Inc. Snooper's fuel would be cesium, a metal that liquefies at only 84F. Liquid cesium would be vaporized and injected into a chamber where a nuclear reaction would convert the cesium atoms into exceedingly fast-moving ions, which would then be driven electrically through the jet exits at desperate velocities.

• **Limitations**—An ion propulsion system wouldn't work inside the earth's atmosphere, and it wouldn't lift a rocket off the ground against the pull of gravity. For those jobs, chemical fuels would still have to be used, much as Jupiter C boosted the Army's Explorer into the skies. But once the rocket was in orbit and free of the full force of gravity, it would need a different kind of propulsion. It would already be going perhaps 20,000 mph., perhaps more, and it would be encountering much less resistance than in the first stages of its flight. So the propulsion system would not need to develop so much thrust as in the early stages. Still, it would have to display some very special performance characteristics.

Basically, the need is for a variation

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of the jet engine that can get some advantage out of nuclear energy to drive a space vehicle. Using a reactor to drive ions at high speed looks like the most practical way to do it. The sense this makes traces to the peculiar properties of jet propulsion, properties entirely different from the familiar situation of a motor driving a wheel.

Any jet engine gains thrust by expelling matter behind it—ordinarily by heating it, with the heat coming from the burning of the matter itself or, theoretically, from a nuclear reactor. In the vacuum of space any thrust accelerates a vehicle, and you can get up to the speed you want either with a short strong thrust or a weak thrust continued for a long time. In either case, a lot of speed takes a lot of thrust.

The amount of thrust you can get depends on several things. You can get a lot of thrust by expelling a great deal of matter. Or you can expel less matter but expel it at higher speed, a higher jet velocity. However, there is a limit on the velocity: It won't be efficient if it is too much greater than the speed of the vehicle.

• **Two Ways**—So when a rocket is taking off from the ground, it uses the first method—a great deal of material in its jet. The chemical energy of its burning provides ample energy. But a vehicle that has been put in orbit is moving fast and can use the second method—a high jet velocity. This way, you can build up speed without a lot of material in your jet. Since all the jet material has to be hoisted into orbit along with the vehicle, this is a great advantage.

And so the idea of the ion engine is to get a high jet velocity by accelerating charged particles electrically. One way to get the electricity is to accelerate the ions by means of a nuclear reactor.

• **Scientists at Work**—No one has yet agreed how to put this propulsion theory into practice, however. The research job is complicated by the ion's peculiarities. But a number of companies and universities think it's time to start building experimental ion rocket engines regardless. North American's Rocketdyne Div., for example, is officially only making an analytic study of an ion rocket power plant for the government. But privately two of its engineers, M. I. Willinski and E. C. Orr, devised the specifications for Snooper (drawing, page 119).

Snooper was designed as an unmanned vehicle for a one-way trip into space. A closed-system nuclear-powered turbogenerator would provide the electrical juice to accelerate the ions. The reacting ions could supply one-sixth of a pound of thrust to each of the two jet motors—seemingly an infinitesimal thrust, but sufficient to keep a rocket

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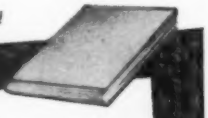

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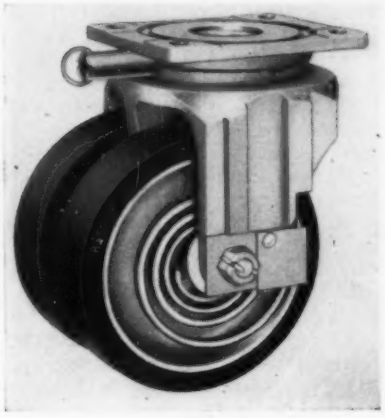

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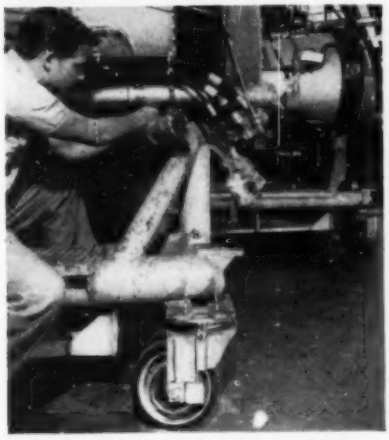

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moving when it's already speeding at 20,000-mph.-plus through the thin reaches of space. Or, alternately, if propulsion were not needed, the reaction could make around 147 kw. of power available to the payload.

• **Interplanetary Cargo**—The rocket's payload would consist of a guidance system, instrumentation, and research gear. A telescoping structure would separate it from the power plant for protection against radiation damage.

To get rid of excess heat from the power system, Snooper would use big winglike radiators that would be furled during flight through the earth's atmosphere. Without these contrivances, heat would be likely to destroy the vehicle.

The designers placed the power plant and propulsion system in a compact package in the rocket's tail. The contents of this package would include the nuclear reactor, turbogenerator, propellant storage tank, and a pair of ion rocket motors. The motors could be rotated on gimbals to slow or speed the vehicle as required.

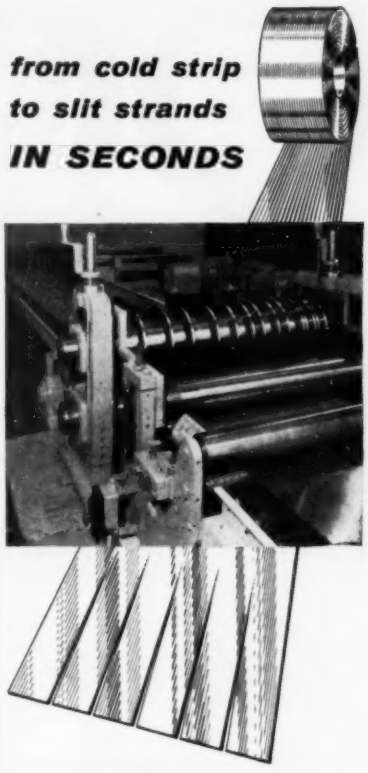
Cesium was selected as Snooper's propellant because it's so easy to ionize. In an ion rocket, it must be possible to ionize the propellant completely, because only ionized atoms will contribute thrust. Of all the elements known to science, the easiest to ionize are the alkali metals—sodium, lithium, potassium, rubidium, and cesium. Of the lot, cesium and rubidium melt and vaporize at the lowest temperatures. Cesium and rubidium have another advantage—of all the alkali metals, they boast the highest density. This reduces the volume of propellant it would be necessary to tote.

• **Choosing a Reactor**—The decision on what type of nuclear reactor to install in Snooper would depend on the fission neutron energy output available. According to the designers, however, the most promising candidate seems, on preliminary investigation, to be an unshielded fast or intermediate reactor. These reactors don't yield poisonous fission byproducts to anything like the extent some others do.

Still, there's much research to be done in this field. One big help will be the Atomic Energy Commission's experience in studies of liquid metal systems.

• **Assignment in Space**—Of course, the final proof of an ion propulsion system will be whether it can move a payload. A vehicle such as Snooper would be expected to spiral around and around the earth in an ever-widening orbit, gradually increasing its speed all the while. It would whirl farther and farther away from the earth until, at some predetermined point, its propulsion system would be shut off. Then the vehicle would be allowed to coast into a new

from cold strip to slit strands IN SECONDS



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orbit as a satellite of some adjacent body. At that point, the power plant would switch over to energizing the instruments to send data back to earth on Snooper's new environment.

But Snooper would be a robot reconnaissance vehicle and nothing more. It might reconnoiter the sun and various planets to pave the way for man's flight into space. But it couldn't be used for manned flight without shielding the reactor, and it couldn't return to earth. The trip would end when the supply of liquid cesium ran out.

• **Alternate Approaches**—Other researchers are trying various other tacks to make it possible for man to go along for the ride. Some are following the line described by Dr. Roy Smelt, director of research and development for Lockheed's Missiles System Div., as the "old form" of ion propulsion. In this system, a magnetic field accelerates the ions to create the reaction that results in thrust. However, Lockheed has abandoned this approach, for now anyway, because it would require a magnet too heavy to be practical in a rocket.

Lockheed has turned most of its effort instead to a broader study of magneto hydrodynamics. In this investigation, the company is trying to find out how to generate high-temperature gases, ionize them, and then move them around magnetically or electrically to produce thrust. Lockheed also has an eye on an alternate possibility—somehow converting nuclear energy directly into thrust, instead of going through a magnetic or electrical stage first.

• **Fusion Answer?**—The reasoning behind this last hope is simple. Scientists think there must be two ways to utilize nuclear energy:

- To generate power.
- To take the nuclear particles thrown off in the reaction and use them directly to obtain propulsion.

To propel a space vehicle, particles must have two characteristics: (1) extremely high velocity and (2) minimum mass. This describes exactly the sort of particles emitted in a fusion reaction. This is why more and more scientists are coming around to the view that ion propulsion and fusion problems can be solved with the same kind of research.

• **Sun Power**—In one other proposal, a solar energy system might be substituted for a nuclear reactor as a source of power in a space ship. But there are a number of things wrong with this solution:

- It would be difficult to package solar mirrors for the ride up through the earth's atmosphere.
- The amount of energy would vary as the rocket approached or headed away from the sun.
- The rocket's power plant wouldn't work when the vehicle was in shadow. **END**

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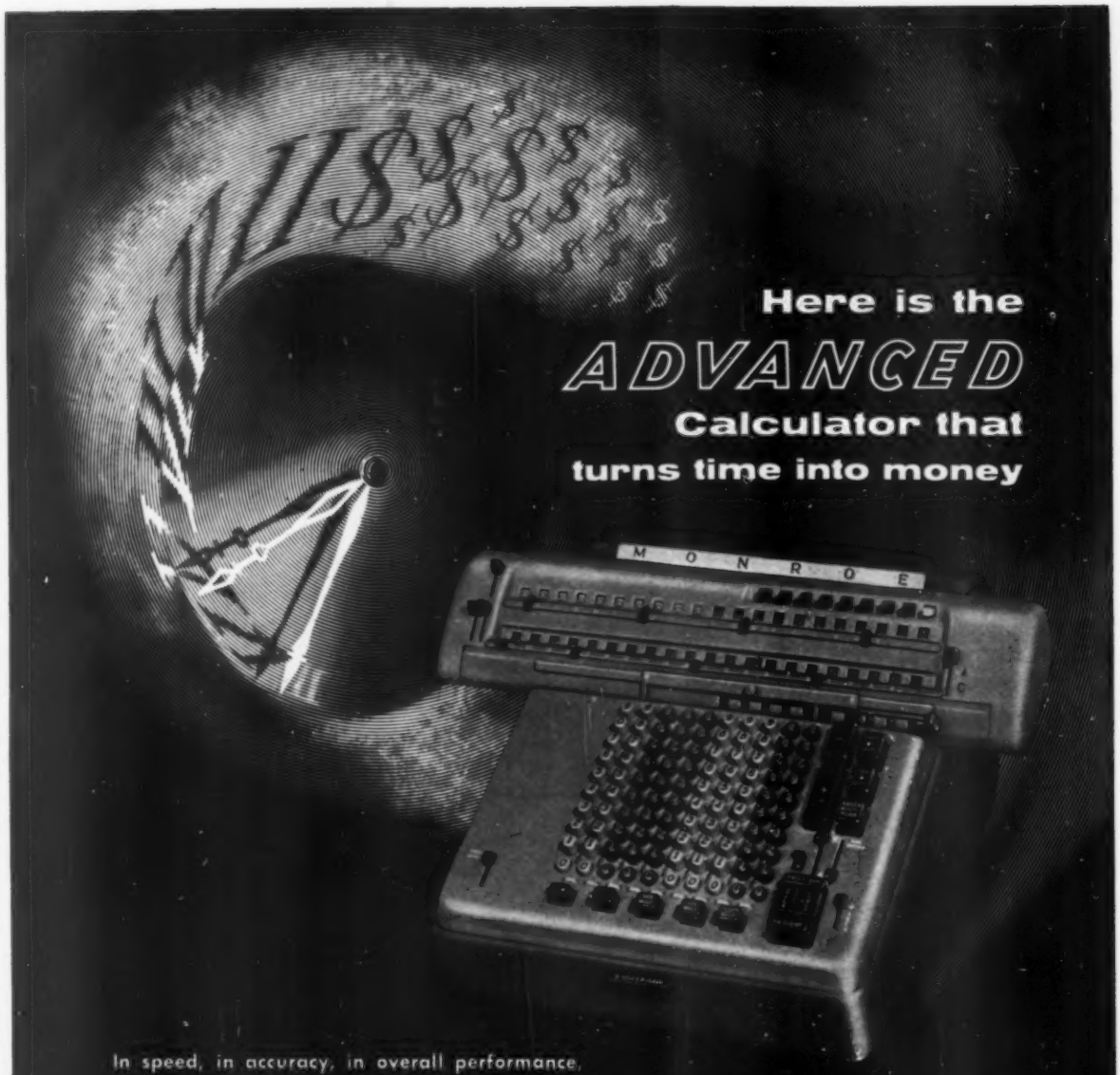

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INTERNATIONAL OUTLOOK

BUSINESS WEEK

FEB. 15, 1958

Crisis and turmoil throughout the Arab world—from North Africa to Iraq. That's the prospect facing Washington.

France has brought the struggle in Algeria to a boil with an air attack on a village in neighboring Tunisia. This has pushed Habib Bourguiba, Tunisia's pro-Western premier, closer to the Algerian nationalists. It is leading the U. S. to shift away from its neutral stand on the French-Algerian war.

In the Arab Middle East, Egyptian Pres. Nasser's union with Syria has forced the kings of Iraq and Jordan to try for their own union—one that might someday include Saudi Arabia. In the end, though, even this union of three monarchies could fall under Nasser's sway.

Washington is moving cautiously in these tense situations.

In the Middle East, State Dept. policy, on the surface at least, is to sit tight until things develop a little further.

So far, State doesn't seem to be sure whether an Arab federation created by Nasser would be neutral in the East-West struggle or pro-Soviet. One thing, though, is clear: Under Nasser's leadership, the two have-nots of the area—Egypt and Syria—will try to draw the oil-producing countries into a larger Arab union.

It's hard to see either Iraq or Saudi Arabia joining a pro-Soviet affair. Iraq can hardly tie itself into Nasser's federation scheme and still stay in the Baghdad Pact. But Iraq would have bargaining power. It undoubtedly can exact a price from Nasser for getting out of the Baghdad Pact.

In North Africa, the U. S. will hesitate to take an open stand against the French, for fear of straining NATO. The U. S. will quietly push France to repair its relations with Tunisia. However, this policy will be tricky. If Bourguiba takes his case to the United Nations, we may have to side with Tunisia.

At the same time, Washington will press for an Algerian settlement. The French have been optimistic. But U. S. officials are convinced that France is losing ground. These officials also feel that, by delaying a settlement, France not only endangers its own position in North Africa but helps alienate the whole Arab world from the West.

The shift in U. S. policy can't help but produce new friction between Washington and Paris. Criticism coming this week from the U. S. and Britain already has raised nationalist fever in France.

Several governments may come and go in Paris before the Algerian issue is settled. Although they have been backing Premier Gaillard, both the Socialist Party and the Catholic MRP (Popular Republicans) now want a change in Algerian policy.

It may be that the Tunisian air attack will prove to be the catalyst for an Algerian settlement.

—•—

In London this week preparations have started for next September's Commonwealth Economic Conference.

This meeting was originally scheduled as a routine affair. Now London observers feel there's a chance that it will have a different coloring

and may even have shades of the Ottawa Conference of 1932. (That's where the now wasting imperial preference system got started.)

It all hinges, say these observers, on what the international economic climate is like this summer. If the U. S. economy is recovering, promising a pickup in international trade, then the Commonwealth meeting won't amount to much. But if the U. S. recession should be deeper by September, and world trade has started to spiral downward, things will be different. The Commonwealth countries will be tempted to turn back to the preference system to expand their mutual trade, even though this would conflict with Britain's plans for a Free Trade Area in Europe.

If business sags too much, probably only a transfusion of dollars could stop the rush toward new preferences. The Commonwealth countries might ask for a big injection of funds (mostly dollars) into the International Monetary Fund. IMF could then help hard-hit trading countries ride out the storm.

—•—

London and Bonn are having their annual row over support payments for British troops stationed in West Germany.

The British are asking $140-million to cover the foreign exchange costs of keeping their forces on German soil. As London sees things, Bonn can well afford such a payment, since German defense expenditures are far below Britain's.

But the Germans say their budget already is overtaxed—and they say that support payments smack too much of occupation days. So Bonn is offering a $280-million advance payment for military equipment German forces expect to buy from Britain. (This already is included in the budget.) The trouble is that London says no, on the ground that this won't ease its budgetary problem.

A number of compromises seem possible. One would be for Bonn to raise its advance payment ante to around $500-million. With that much in the kitty, London might forget its own budgetary squeeze.

—•—

Indonesian Pres. Soekarno and his "guided democracy" seem to be on the skids.

Opposition to this Communist-inspired setup has gained real momentum in the outer islands. This week it produced an ultimatum to Djakarta from a powerful dissident group on Sumatra (BW—Feb.8'58,p79).

Now Soekarno's own Nationalist Party (PNI) seems to be cracking up. Even Premier Djuanda, long a Soekarno stooge, apparently feels that a new government must be established under ex-Premier Hatta, a leading Moslem anti-Communist.

Washington already is leaning against Soekarno. You could see that in the remarks Secy. of State Dulles made this week at his press conference. Though Dulles was circumspect, some of his advisers feel that only a change of regime can overcome the present chaos and prevent civil war.

Now Moscow will have to decide whether the Indonesian Communists are to accept a setback—or precipitate a civil war. It looked this week as though the Communists would play a waiting game. If they do, it will mean they are counting on Indonesia's economic difficulties to give them a better chance in a showdown later.

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GEORGE MEANY, AFL-CIO president, is setting up machinery that may end scrapping for jobs in construction. It raises . . .

Real Hope on Jurisdiction Fights

Craft and industrial unions—traditional enemies—come to terms on a plan designed to help settle local clashes.

For the first time in more than two decades, business and industry have a glimmer of hope that costly inter-union jurisdictional disputes, raiding, and product boycotts may be nearing an end. If so, the dogged determination of AFL-CIO Pres. George Meany will be responsible.

Internal warfare between craft and industrial unions split organized labor in the 1930s, and has kept it at odds ever since. It led to dual unionism and bitter rivalries. Feuds developed that often left employers as the real losers in disputes to which they were not a direct party.

Last week, at the insistence of Meany, rival union leaders agreed to at least an armistice. They put aside prejudices and practices of long tradition and took steps toward settling some of the feuds that grew up along with their unions.

• **Peace Moves**—In a series of agreements:

• The Building & Construction Trades Dept. and the Industrial Union Dept. came to terms on a formula that divides construction job rights in industrial plants and, more significantly, provides machinery for settling disputes in the shadowy area where jurisdictional boundaries may overlap.

• The executive council brought all AFL-CIO unions under a no-raiding pact that bars a union from organizing in another's jurisdictional field. This adds about 56 unions to the 80 already covered by a voluntary agreement inherited from the old CIO. Of the 56, about 35 have never been involved in jurisdictional squabbling. However, the others brought under the pact include a number whose raiding tactics have often created management problems.

• The council tightened a federation ban against union boycotts of products manufactured by another AFL-CIO affiliate; it announced that in the future the settlement procedure used against raiding will also be applied to boycott cases.

• While it was not strictly an internal matter, the Building & Construction Trades Dept. agreed to help eliminate "featherbedding" and other "wasteful practices" in the construction industry (page 172). As a part of its agreement with the National Constructors Assn., 24 companies that do about 90% of the country's heavy industrial building, the craft department pledged itself to a continuing campaign against jurisdictional disputes among its affiliated unions.

These developments do not mean that inter-union disputes, raiding, and boycotts will end all of a sudden. The full support and compliance of unionists down to rank-and-file levels can't be counted on, automatically and immediately. The union officials now have some concrete plans to end the squabbling—in time.

• **Machinery for Appeal**—For businessmen, this pact does promise a gradual slackening of costly scrapping between craft and production unions over building jobs in plants, or between rival unions coveting the same job territory.

Of more immediate importance, it means that there is now dispute-settling machinery to which management can appeal when local unions clash. Meany has pointed out that his office is open to appeals from unions or employers involved in inter-union rows.

• **More Unity Now**—The series of agreements came over the third anniversary of the date the old AFL and the CIO signed their merger agreement.

In the years since then, labor unity has been approached but never fully achieved. On several occasions, factionalism in the AFL-CIO threatened its future. Nevertheless, according to Meany, "We have more unity now, with all of our problems, than anyone could have envisioned three years ago."

Reporters at a press conference asked Meany about the prospects for the next three years of labor unity.

"Maybe if I took a good look at the next three years, I'd quit," he replied. But he said it with a grin.

I. How the Pacts Came About

A combination of circumstances and personalities—and some lucky timing—helped bring about the agreements. They were unexpected. There were no

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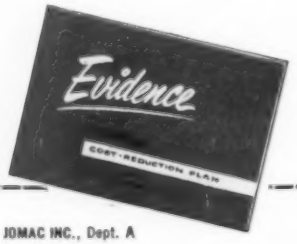

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advance signs that discussions would get anywhere.

Three things changed that: (1) the tighter economy that already was pinching but hurt more when rivalries cut into jobs; (2) the forced absence of the International Brotherhood of Teamsters, which in the past had fought settlements that, it argued, would encroach on the autonomy of unions; and (3) the emergence of new leaders, less tradition-bound in their views, including Peter Schoeman, president of the plumbers.

Largely for these reasons, the craft unions changed their position abruptly last week. Until then, they had resisted peace feelers from the Industrial Union Dept. and had warned they would never trade away any construction job rights.

• **Crafts-IUD Formula**—The Building Trades-IUD settlement reached last week is not appreciably different from a formula proposed last summer but turned down by the crafts.

Under it, construction unions will do all new plant construction, while all production and running maintenance work will be done by industrial unions. The "gray area" in which jurisdictions overlap and disputes occur will be watched over by three two-man investigating teams under AFL-CIO; they will make on-the-site, nonbinding awards of job rights on the basis of the prevailing pattern or policy in the area.

In the plan advanced last year, the work covered in the gray areas—such as major repairs or additions—was put into writing. In the one adopted, the work that falls into the doubtful classification isn't spelled out. More is left to local determination.

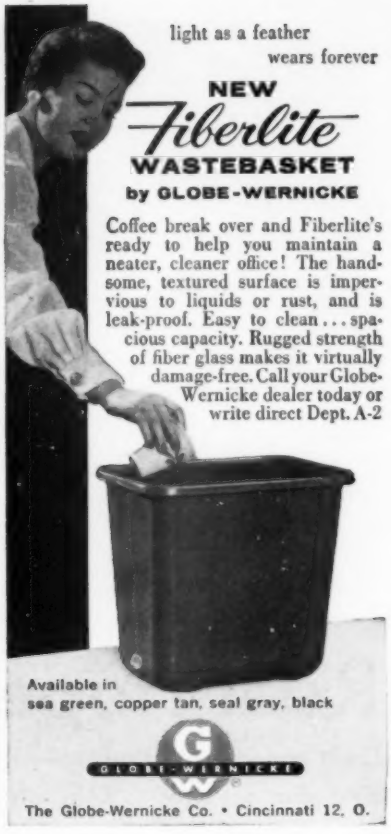
If investigating teams fail to resolve job disputes, Meany and the executive council may intervene.

Eventually, the federation hopes to persuade the Building Trades and IUD to accept binding arbitration on jobs.

• **Pact to Cut Costs**—The Building Trades agreement with the National Constructors Assn. to cut construction costs is a 10-point statement of principles that climaxed three years of joint investigation and discussion.

Privately, the parties agreed that high construction costs—up nearly 50% since 1947—have slowed down building, and that some formal action was necessary. Although the principles that have been worked out, and accepted, apply initially only to heavy industrial contractors, they are intended to be extended to all builders.

A statement against "wasteful practices" is aimed particularly at featherbedding and make-work policies and is intended to guarantee the full use of labor-saving methods, materials, and machinery or tools. At the same time, the statement provides for the elimination of such costly practices as early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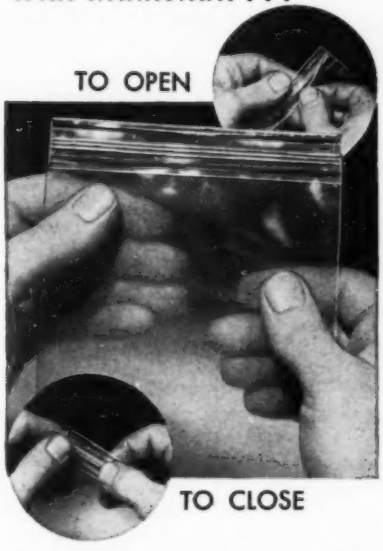

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These craft union practices—which gained momentum during World War II and have remained at a high level since then—won't be ended automatically. The presidents of 19 Building Trades unions must now try to get local groups to eliminate the slack habits of recent years. But with the crafts department and the national officers of building unions on record against wasteful practices, employers are in a position to deal with them.

The result can be a sizable saving in costs, by some estimates 10% to 15%.

• **Raids and Boycotts**—Two of the peace pacts, those applying to raids and boycotts, came not as a result of negotiations but by directive from the AFL-CIO executive council.

In one ruling, the council rewrote its no-raiding procedures to put all AFL-CIO affiliates on notice that they aren't to invade the territory of other affiliates. Violators will be dealt with through settlement machinery operated by the federation.

Unions that have refused to sign the no-raiding agreement must go through its settlement processes on the same basis as other unions up to the final step. The umpire who handles the cases of non-signatory unions can only make recommendations, not binding decisions as he can in other cases. If a non-signatory union refuses to comply with the recommendation, its case will be referred to the executive council.

The machinery set up in boycott cases is the same as that in the no-raiding pact. The umpire—David L. Cole, AFL-CIO's no-raiding agreement umpire and former chief of the Federal Mediation & Conciliation Service—is empowered to recommend decisions, but must leave the enforcement to the executive council.

II. AFL-CIO's Outlook

Every step the federation takes in applying new house rules to its affiliates strengthens its hand—and its future. From the shaky start in 1956 when Meany cracked down on some moves by the then-affiliated Teamsters amid protests of violated autonomy, AFL-CIO has moved steadily further into the internal affairs of its affiliates.

At first, individual unions fought heatedly against what they considered to be a centralization of power in Meany's office and encroachments on their autonomy. Now, resistance to AFL-CIO controls has practically died away. For instance, there was no public reaction—although there were private expressions of discontent—when all unions were brought under the no-raid-

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ing pact, willing or not, or when Meany last week directed every affiliate to comply by mid-April with AFL-CIO codes of ethics. These guarantee many of the union democratic practices that the Administration would require through new laws. AFL-CIO hopes to avoid legislation in Congress by taking the initiative.

Meany's determined leadership, backed by the influence of Walter Reuther and his increasingly powerful IUD, appears to have cracked the last resistance—and to have eliminated some pressing threats to unity.

The inherent distrust and rivalry between craft and industrial unions and between former AFL and CIO rivals won't be cleared away any time soon. But they now appear to be less of a peril to the federation than at any time since the merger agreement.

Big Steel Shuffles Labor V-Ps

With John A. Stephens (picture) going into semi-retirement, U. S. Steel has revised its labor relations and personnel setup.

United States Steel Corp. began realigning its personnel and labor relations organization this week in the wake of a semi-retirement by John A. Stephens, its industrial relations vice-president for 15 years.

After Stephens requested that he be relieved of administrative responsibility, these moves followed:

• R. Conrad Cooper, vice-president for administration planning, became executive vice-president for personnel services—a new and significantly broader job than heretofore existed.

• George M. Thursby, vice-president for industrial relations administration, was appointed administrative vice-president for employee relations, under Cooper.

• R. Heath Larry, assistant general solicitor for labor relations, was appointed administrative vice-president for labor relations under Cooper.

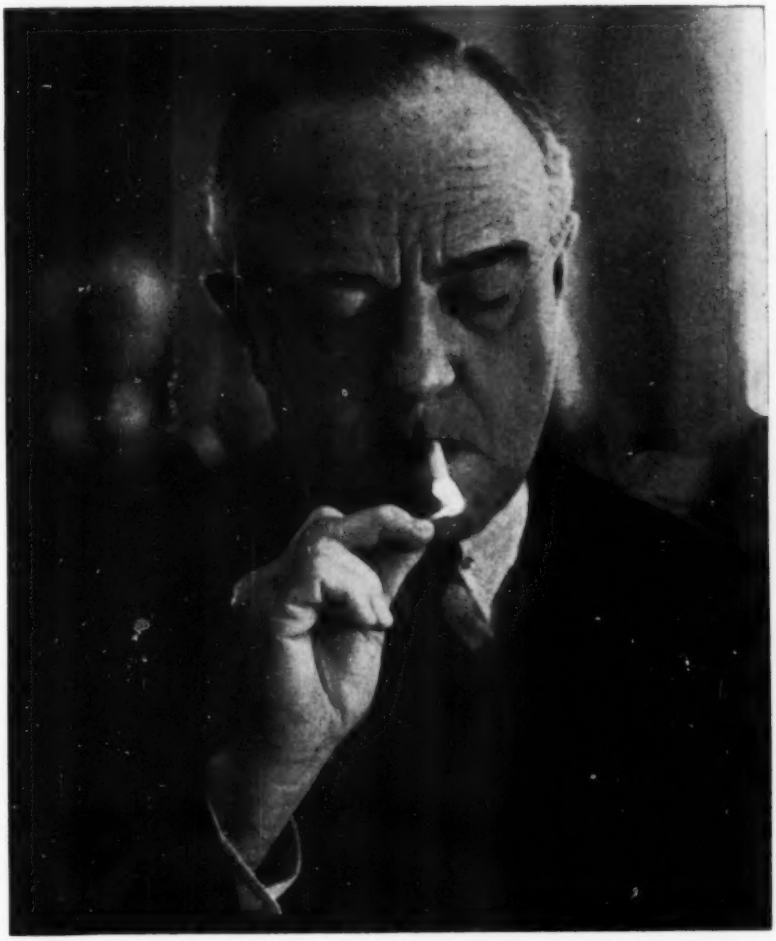
• **Corollary Moves**—Creation of the executive vice-presidency for Cooper was accompanied by these developments:

• Walter F. Munford, assistant executive vice-president for operations, was made executive vice-president for engineering and research.

• M. W. Reed, executive vice-president for engineering and raw materials, became executive vice-president for international and raw materials.

As a result, the corporation now has increased the number of executive vice-presidents from four to six, and has revised and reemphasized responsibilities. According to Pres. Clifford F. Hood, Cooper's accession "recognizes the close interrelationship and the growing importance of the human relations factor in labor relations, organization planning, personnel, and compensation."

• **Guessing Game**—Grouping of hitherto separated functions under Cooper as an executive vice-president by no means solves the question that intrigues the steel industry most: Who will replace Stephens as chief negotiator for U. S. Steel with the Steelworkers?



AFTER 15 YEARS, John Stephens is stepping down as U. S. Steel's industrial relations vice-president. Pittsburgh's big question: Who will be chief negotiator with USW in 1959?

That function now will be a direct responsibility of Cooper. Whether he will exercise it personally is a topic of prime speculative interest in Pittsburgh. As assistant operating vice-president of Wheeling Steel from 1940 through 1945, Cooper was directly involved in negotiating steel and coal agreements. And at the corporation, he has been directly engaged with the USW for a decade in some massive and highly important negotiations involving job classification and technical subjects.

Likewise, Larry and Thursby, who worked closely with Stephens in the actual negotiation of labor agreements, now move closer to the chief negotiating job, both with added stature as a result of their new assignments.

• **Decision Postponed?**—But it has never been said authoritatively that Stephens will not be the chief negotiator again in 1959—even though the Pittsburgh consensus is that he definitely will not be. Stephens will remain active as a vice-president with the corporation "in a special capacity."

Actually, some observers point out, it's not unlikely that there will be no decision on a replacement for Stephens for a year. Hood will reach his retirement date Mar. 1, 1959. Determination of the new negotiating team may await the accession of a new president.

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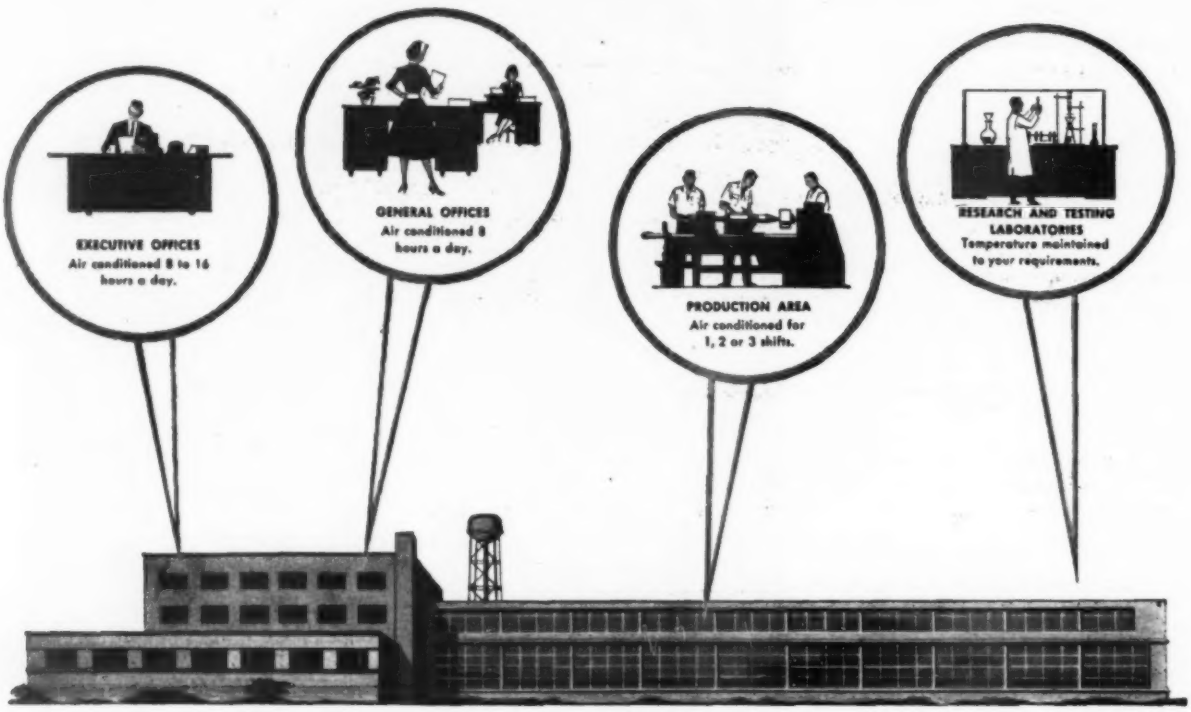
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In Labor

• • •

BLS Says Little Strikes Tend to Rise From Organizing, Big Ones From Economics

The larger the company, the more likely it is the strikes it faces will be over wages, hours, and fringe benefits, according to the Bureau of Labor Statistics. Small companies are more apt to be confronted with strikes over union organization, the agency says.

These and other significant relationships between the size of companies and the incidence of work stoppages have been turned up by BLS:

- During 1947-56, more than 15% of all strikes involved between six and 19 workers, but these stoppages accounted for less than .5% of all strikers and man-days of strike idleness.
- Strikes involving 1,000 or more workers amounted to only 8% of the total, but accounted for about three-fourths of all workers involved and man-days of idleness. Only .5% of the work stoppages involved 10,000 or more workers, but these strikes involved about two-fifths of all strikers and accounted for over half of all strike idleness.
- The smallest and largest strikes lasted longer than those of intermediate size.
- Strikes over wages, hours, and fringe benefits accounted for half the stoppages and two-thirds of the man-days of idleness. This reversed the pre-World War II trend when work stoppages primarily over union organization accounted for over half of all stoppages and for about three-fifths of all man-days lost.

• • •

Inland Steel Sets Up SUB Plan For Its White-Collar Workers

Inland Steel's 3,000 non-supervisory salaried employees are now covered by a Supplementary Unemployment Benefits plan similar to that in effect for production and maintenance workers.

The steel company's white-collar SUB plan provides unemployment benefits of up to 65% of an eligible employee's after-tax weekly take-home pay for as long as 52 weeks. The minimum service requirement is two years. The plan has a separate trust fund.

• • •

URW Seeks "Substantial Improvements" In Pension and Insurance Benefits

The United Rubber Workers will reopen its five-year pension and insurance agreements with all five major rubber companies within the next two months. The first 30-day notice of its intention to seek "substantial improvements" was served last week on Goodyear Tire & Rubber Co., covering 23,000 workers in 11 cities.

Goodyear is scheduled to meet with URW on pension and insurance questions shortly after March 1. Similar conferences will be held later with B. F. Goodrich, Firestone Tire & Rubber, U.S. Rubber, and General Tire & Rubber.

Wages are covered by separate contracts that run to April, 1959. These contracts can be reopened on 60-day notice. **URW reportedly plans to serve wage notices in the spring—presumably to time the opening of rubber talks to an expected midyear settlement in the auto industry.**

• • •

British Columbia Paper Mill Strike Ends; Workers Win 9½% Pay Hike

A 12-week paper and pulp mill strike in British Columbia ended last week when members of the Pulp & Sulphite Workers and the United Papermakers & Paperworkers accepted a 9½% pay increase—7½% retroactive to July 1, 1957, and 2% more on June 30, 1958. The new contract expires June, 1959.

About 5,600 workers walked out at nine paper mills on Nov. 14 after rejecting a 7½% wage boost recommended by a conciliation board. The unions demanded a 12% hike.

• • •

Albert Haywood, Son of Late "Mr. CIO," Is Victim of AFL-CIO Economy Cutback

The son of the late "Mr. CIO" is a victim of AFL-CIO's cutback in its organization staff.

He is Albert Haywood, son of the late Allan S. Haywood, who was executive vice-president and director of organization of the CIO when he died in 1953. The younger Haywood, a field representative for the Wisconsin region, was one of three Wisconsin organizers affected by the federation's retrenchment.

• • •

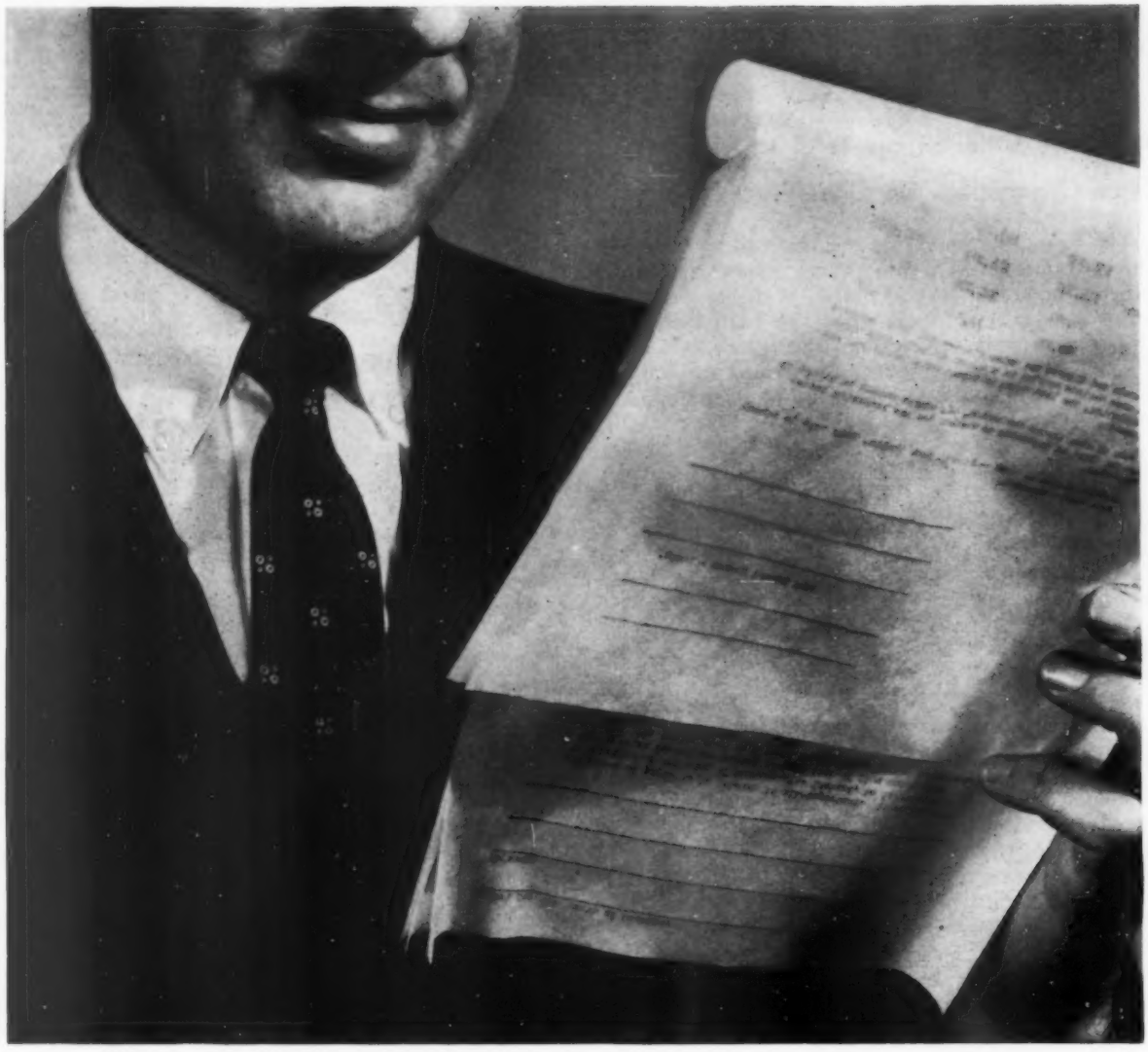
Management's Right to Choose Machine Over Man Is Upheld in Schlitz Case

Management's right to replace a worker with a mechanical device was upheld last week by an arbitrator in a Milwaukee labor dispute.

R. W. Fleming, the arbitrator, ruled that the Joseph Schlitz Brewing Co. was justified in replacing a switchman in its carton department by an automatic control.

Local 9 of the United Brewery Workers argued that the switchman, besides pushing a button to stop and start a conveyor line, was useful in avoiding jam-ups of cartons. **It claimed that removing the switchman placed more work on the foremen and violated an "adequate help" clause in the contract.**

Fleming ruled that there was no evidence to support the union's claim and that the company was not required to bargain with the union over the change.



Plymouths on the payroll make comptrollers smile!

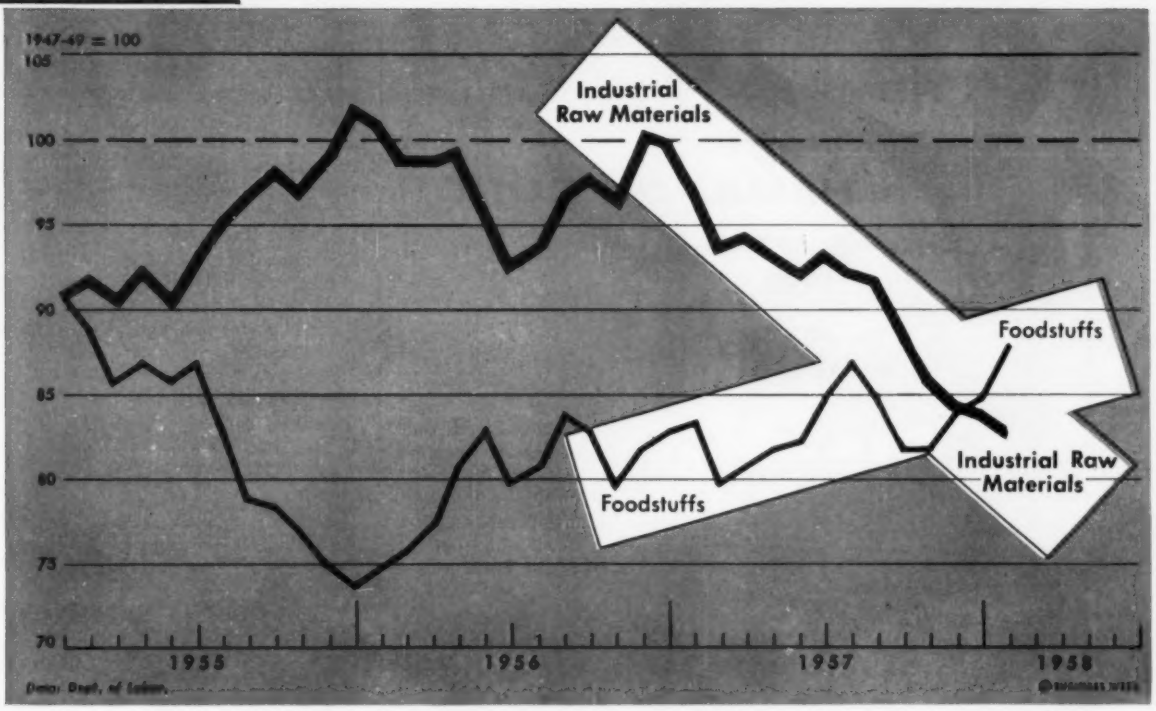
The longer a Plymouth fleet operates, the happier the expression on the man who minds the money. For new '58 Plymouths, by keeping expenses under budget, can put a company even further in the black.

For instance: Plymouth's new Fuel-Saver Choke is designed to save fleets hundreds of dollars annually. Plymouth's Total-Contact Brakes shave relining and maintenance costs. Plymouth's brawny chassis and body also reward you, especially in the long run where fleet costs become critical.

A Plymouth fleet can even spur your sales! Years-ahead styling whets morale—makes salesmen prouder, more productive. Plymouth's Torsion-Aire Ride (*no* extra cost) takes the punishment out of long hauls, keeping your men in peak-selling form.

When you consider Plymouth's modest price (more competitive than ever!) and solid resale value, the choice of a Plymouth fleet is almost inevitable. For smiles all around—but especially on your comptroller—go Plymouth for '58. See your Plymouth dealer!

Costs go down . . . sales go up . . . when you go **Plymouth**



Commodity Prices Give No Clue

Indexes of industrial raw materials and foodstuffs complete their scissors action. But the varied movements offer no hint as to when the general business recession may come to an end.

Investors, searching the commodities markets for clues to the end of the business recession, are finding little to indicate an early change.

One key commodity index, the prices that industry pays for industrial raw materials—which many watch as the most sensitive indicator of business activity—slid to 82.5 in January, its lowest level since March, 1954. In the process, the index slumped below the rising averages for foodstuffs, which are soaring under the stimulus of adverse weather and government farm doctoring.

These swings complete the scissors pattern that these two commodity groups have traced during the past two years (chart). In effect, this diverse action has washed out their extreme movements in the Bureau of Labor Statistics over-all spot (cash prices) index of 22 commodities, giving it a relatively flat tone. Thus, on Feb. 4, the spot index stood at 84.9, down only 6 points from a year ago.

• **Steeper Fall**—In raw materials the price decline has been much more severe; they have dropped 13 points in the past year. This is the price index that many investors use to gauge the economy, because industrial raw materials prices closely follow the trend of business. When business slackens, buying of raw materials falls off—with corresponding price dips. The index also is a barometer of inventory policy, since low prices mean that companies are liquidating inventories and their purchasing agents are buying new stock cautiously.

A few daring investors go so far as to base stock market action on the interplay of commodity prices and inventories. They reason that a trend of rising prices means that inventories can be sold at a gain. On the other hand, falling prices mean that inventory losses must be assumed. So these theorists shy away from buying stocks when commodity prices are weak, buy only when commodity prices are strong.

But Wall Street history is studded with the failures of stock prices to follow the trend of commodity prices. Commodity prices rose in 1940, 1941, and 1942, but stock prices receded. In the spring of 1946, commodity price controls were scrapped, and a sharp inflation of staples got under way. But stock prices began to waver at about that time; they fell hard in September and were down substantially for the year.

• **Weaker Demand**—The sharp drop in industrial raw materials is primarily due to waning demand for metals. Copper scrap has rolled under the twin blows of larger refined output and slack demand here and abroad; today it can be bought for 19¢ a lb., compared to a 1955 high of 45¢ a lb. News of production curbs has produced only momentary lifts, as copper users find that there still is no pinch on supply.

Lead scrap also is down, selling at 5½¢ a lb., the lowest in years. Surpluses have forced zinc to 10½¢ a lb., off 3½¢ from its 1957 high. This week, new selling pressure was added when the American Zinc Institute reported that stocks had swelled 14,000 tons during January to reach 180,346 tons, the highest since August, 1954.

Moreover, future prices on these commodities show no signs of an upturn. Traders are betting that business will be chewing up less of the nonferrous metals in the months ahead.

• **Gray Goods**—Slack demand has pushed prices of print cloth and rubber down, too, after temporary rises. Textile makers bolstered gray goods prices for awhile by closing mills during the Thanksgiving and Christmas holidays, and by passing on higher cost of raw

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cotton to customers. But the plot didn't work, and print cloth is back to 17½¢ a yard.

Rubber prices rose briefly on fears that Indonesian supplies would be curtailed, but once the scare wore off, prices dropped. Unexpectedly slow sales of new and used cars, downward revisions of tire demand, both for equipment and replacement, and cheaper synthetic all have worked against spot and future prices.

Paradoxically, the recent firmness in a few raw materials—quite apart from the general strength in tallow and rosin—stems also from metals. Tin prices have steadied under the influence of the International Tin Council's buffer stock purchases and its request that the major producers curb exports. But at 93¢ a lb., tin still is below its 1957 high of $1.

• **Doubtful Indicator**—Steel scrap prices have risen, too. This week, scrap was going for $36, up from its last November low of $31. How trustworthy this flurry in steel scrap may be is dubious.

The quick rise in foodstuffs prices—8% in the past four months—is due mainly to relatively short supplies of cattle and hogs, plus Florida frost that sent fresh fruit and vegetable prices kiting (page 34).

A 20¢-a-lb. rise in cocoa prices, however, helped foodstuffs hit 88.3, best since February, 1955. A year ago, cocoa sold for 23¢ a lb.; it sold this week at 43¢. The bean's initial spurt was a result of a short crop in Ghana, the major producing area, and price supports on cocoa by Brazil, another major grower.

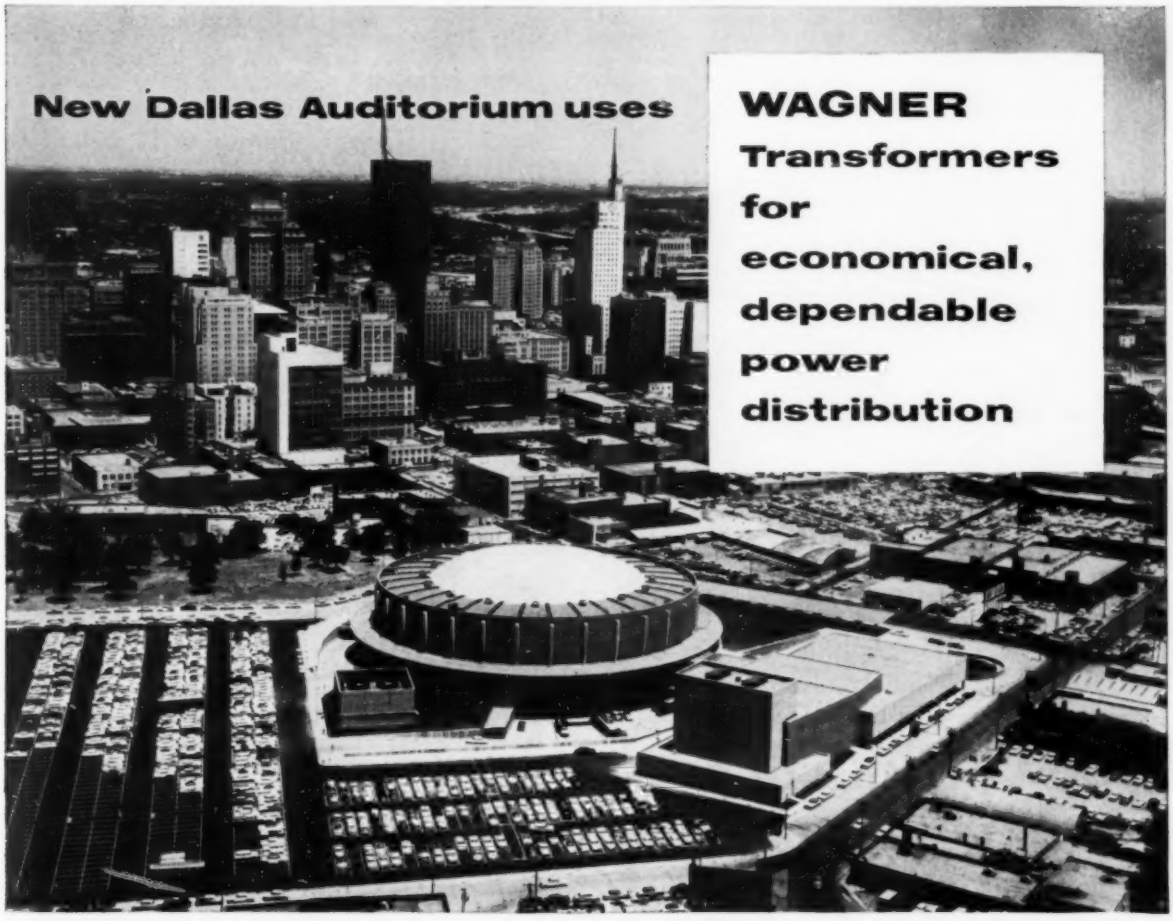
Since Brazil will likely attempt to remedy its foreign exchange currency problem by sticking to price supports—and perhaps by processing less of the crop than it usually does for export—high prices could hold fairly steady for the near term.

• **Foodstuffs**—Most commodity traders agree that foodstuffs generally may be firm until late summer brings larger supplies to market. But futures trading will be affected by daily news out of Washington in this election year. Last week prices took these hops as speculators noted Washington developments.

• Prices slumped, then recovered quickly, on reports that a bill giving farmers the option of taking a high loan and restricted acreage or a low loan and larger acreage would be introduced in the Senate.

• Futures of the new wheat crop advanced in response to word that the farm bloc would try to hike the 1958 crop wheat support price from $1.78 per bu. to $2.

• Fats and oils moved up on reports of efforts to legislate more funds for the overseas surplus disposal program. **END**



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Busy Treasury

$16.8-billion refinancing went over well, but another cash offering of $2-billion or more will be coming along.

The Treasury was congratulating itself this week for the success of its huge $16.8-billion refunding operation (BW—Feb.1'58,p112). But it will soon be in the market again with a cash offering of $2-billion to $3-billion.

One reason it must raise new cash is the sizable attrition—the amount of maturing obligations turned in for cash payment—in its big refunding. Attrition amounted to over $1.4-billion, well over 10% of the publicly held maturing obligations. This was a little larger than the Treasury expected, but there was a plausible explanation for the discrepancy.

The Treasury miscalculated on the exchange of maturing 91-day bills included in the exchange offering. Over 40% of this special issue was redeemed for cash, mainly because they had been available at attractive discounts and met special tax requirements. Government dealers also say that this was the first time that bill holders were offered an exchange, and the complicated interest adjustments that were involved led many to prefer redemption.

• **The Right Guess**—But the Treasury showed that it had been correct in offering a long-term issue. Over $1.7-billion went into the new 3½% 32-year bonds, which indicated strong demand. The Treasury had hoped to get as much as $2-billion in the long term, but dealers report that speculative purchases were smaller than expected. As Aubrey G. Lanston & Co. put it, "Early reports of heavy speculation in the issue served to throw up a strong note of caution, with the result that there were many 'underwriters' who dropped or cut their commitments."

Both the other offerings, a 6-year 3% bond and a 2½% one-year certificate, were bought in volume. And all three issues moved to a premium as soon as trading began.

• **Discount Rate**—There is no doubt that the Treasury was helped by the Federal Reserve's reduction in the discount rate before the refunding was announced. And it is counting on further steps by the Fed to smooth the path of its cash financing.

The money market feels sure that the Fed will make another cut in the current 2¾% discount rate—to 2½% or even 2¼%. It is also betting that reserve requirements will be reduced just before the Treasury comes to market. **END**

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In the Markets

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Near-Record Stocks of Dealers Slow Sales of Municipal Bonds

Municipal bond dealers were no more impressed than was the stock market with the Administration's little step up in public works spending this week. Most dealers feel that the sluggish tax-exempt market won't turn up until the Federal Reserve Board cuts reserve requirements, which would give banks more funds to push into high-grade municipals.

Meanwhile, **dealers' shelves are stocked with near-record inventories.** Supplies at midweek were close to the peak $332-million held in November, 1955, and dealers expect that the big list of new offerings slated to come to market will set a new record for inventories.

This logjam has slowed sales, and only a few of the offered issues this week met with immediate success. **Dealers are particularly worried about the hard time they're having in selling short-term maturities in the high-grade market.** They say some banks that normally buy these maturities have no funds available, and that little new money is coming into the market.

But **a few dealers are bullish about sales.** They point out that last week underwriters sold 72%—or about $220-million—of the new issues. That is regarded as a healthy performance. But most think that unless the Fed cuts reserve requirements, the underwriters' stockpile will cause further indigestion in the market.

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Gloomy Investors Turn the Rally Into a Series of Marked Selloffs

The stock market this week was no longer shrugging off the recession.

Many professionals had been impressed with the strength of the market during January and early February in the face of bad economic news—higher unemployment, lower earnings, smaller profits. But this week investors turned gloomy, and the market was hit by a series of selling waves. **The best indication of the change in investor sentiment was the sharp selloff that followed the President's statement that the "beginning of the end" of the current recession was in sight.**

The rally that preceded the reversal hit 458.65 on the Dow-Jones Industrials Index. This was above the 450-453 ceiling that previous rallies had failed to penetrate (BW—Feb.8'58,p93). But it was clear that the rally had little steam, and the turnabout has been sharp.

The current decline indicates that, though investors may have discounted poor business news to date, they are showing concern about the near-term future. **But brokers report that customers are still "stock conscious."** This suggests that the present 425-420 floor may hold if the market goes to that level.

Some professionals think that trading will stay for some months to come in the 420-460 range in which it has been fluctuating. They think that there will be nothing in the way of good news or bad to produce a breakout. But one market expert holds that the market is vulnerable to "unexpected developments," and, in his view, such news is more likely to be bad than good.

There is much broader movement in stock groups than in the stock averages. And some groups have managed to do well in the decline. **Among those running counter to the downtrend are retail food chains, drugs, tobaccos, and utilities.** Even if the market declines farther, these groups should continue to show strength.

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Rates on Commercial Paper Slip As Finance Companies, Dealers Vie

Commercial paper rates declined farther this week as the result of a competitive war between the major finance companies and commercial paper dealers.

The big finance companies, which market their own paper, cut their rates by one-quarter of 1%, the fifth reduction this year. **This reduction was partly motivated by lessened needs for credit because of the drop in auto sales.** At present, the major finance companies are offering to pay 2% on short-term loans, 2⅛% for 4-to-6-month paper.

Commercial paper dealers, who market the paper of corporate borrowers, cut their rates only on 4-to-6-month paper by one-eighth of 1% to 2⅜%, the sixth cut this year. **The dealers claim that borrowers who see the finance company rates are forcing them to reduce their rates to an "artificial level."** As the dealers see it, the finance companies have set their rates at a level that will discourage investors, and which cannot be maintained if potential corporate borrowers increase their demand for credit.

Both the finance companies and the dealers say that competition is not the only key to the rate picture. The 91-day Treasury bill rate is the most important influence in commercial paper rates. If the Treasury bill rate stabilizes, then commercial paper rates will firm. But if the bill rate works lower, then dealers say their rates will go down again, too.

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The Markets Briefs

The reduction in stock margin requirements in mid-January brought **no immediate increase in borrowing** by member firms of the New York Stock Exchange. In fact, borrowing dropped to $1.9-billion in January, $250-million below December. It was also well below the $2.1-billion outstanding in January, 1957.

Canada's switch to an easy money policy was reflected this week when **chartered banks cut their prime lending rate from 5½% to 5¼%.** This is the second one-quarter of 1% reduction in the past two months. It follows a sharp drop in the discount rate charged by the Bank of Canada as well as a bigger than seasonal decline in loan demand.

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But that's only part of it! Goodstix Product Identifiers* look better and last longer. Reverse-printed in one to six colors on transparent 2 mil Kodapak Sheet, they are two ways better: (1) because Kodapak is compatible with printer's ink, colors keep their original brilliance and sparkle; (2) because printing is reversed, and on the back of the label, your message is protected by a wall of crystal-clear Kodapak Sheet—unaffected by moisture, friction, or dirt.

It would pay you to get more information about these new product labels, window streamers and posters—all printed on Kodapak Sheet for beauty and longer life. Call our representative or write.

Cellulose Products Division
EASTMAN KODAK COMPANY, Rochester 4, N.Y.

*Goodstix Product "Identifiers" are pressure-sensitive labels printed on Kodapak Sheet by Goodren Products Corp., Englewood, N.J.

Kodapak Sheet MAKES GOOD MERCHANDISE BETTER

Kodapak . . . trademark for Eastman's plastic sheet.

Sales Offices: *New York, Chicago, Atlanta.* Sales Representatives: *Cleveland, Philadelphia, Providence.*
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PERSONAL BUSINESS

BUSINESS WEEK
FEB. 15, 1958

Although the heat pump was introduced only a few years ago, it is rapidly catching on as an efficient heating-cooling unit for the home. And if you are considering revamping the temperature system in your house—or have plans in the works for a new home—it's smart to take a look at what "heat pumps" have to offer.

The heat pump's operation is quite simple; it works like a reversible refrigerator. In the summertime, it extracts heat from air inside the house and deposits it outside; in winter, it extracts heat from outside air and brings it into the house.

Compared to a combination heating-cooling system, a heat pump has several advantages. It's generally smaller. And because it is electrically powered, it has no problems of smoke, soot, ashes, or fuel storage (obviously reducing the fire hazard, too). A heat pump does not require a chimney, a saving of maybe $500 to $1,000. This saving disappears, of course, if you want one or more fireplaces in your new house.

Compared to a typical furnace heating arrangement in an existing house, the heat pump has all the advantages above, plus the additional factors of easy operation, pushbutton controls to switch from heating to cooling, or vice versa, and easier maintenance.

On the minus side are two drawbacks:

• **Higher installation costs,** especially if you put a heat pump into an older house that has a "wet" system (hot water or steam). These costs are trimmed somewhat if your house already has the necessary large ductwork.

• **Higher operational costs.** These can reach the point—principally if you live in a cold, northern climate—where the pump's operation is too expensive to be practical.

• **Heat pumps work best where the weather is temperate—no extremes of cold and hot—or where heating and cooling needs are fairly evenly balanced, as in the Southern and Southwestern states.**

The idea is making some headway in the North, though—but here newer units usually have a built-in supplemental heating element that generates additional heat automatically when the temperature outside drops to around 20 deg. The supplemental unit (which means more equipment and power, of course) works like a floor-model electrical heating unit.

As to costs: **In average-climate locations, a heat pump costs from 5% to 20% more to install than a conventional packaged gas heating and electrical cooling system.** You can figure about 10% more, on average—unless you live in a really hot climate where a smaller unit can be used.

For a well-insulated existing home or a new house of 3,000 sq. ft. (eight to 10 large rooms)—located in an average U. S. climate, say Kansas City—**an adequate heat pump will run at least $3,500 installed.** For the older house, this figure applies only where a hot air system already is installed; the heat pump can jump to as high as $6,000 if you have a wet system.

Operating costs vary, of course, depending on climate and the local rate for electricity. **In hot climates, the cost can be about the same as for a combination heating and cooling system; in colder climates, the month-to-month outlay can run 20% to 40% more.**

Here's a typical example—the house located in an average-climate Midwestern city: There are eight rooms upstairs (about 2,000 sq. ft.), plus a heated basement and playroom (1,600 sq. ft.). The heat pump has a 7½-hp. compressor, 1½-hp. fans, and an auxiliary heating unit (13-kw.) within the pump. The auxiliary kicks on when the outside temperature drops to 19 deg. Given an average winter (5,600 "degree days") and an average summer,

20,000 kwh. are used for heating and cooling during the entire year. At a typical Midwestern rate of 1.8¢ per kwh., the annual electric bill comes to $360 (for heating and cooling).

Newest idea in heat pumps is a one-room portable model, to be introduced in a few weeks by Carrier Corp. The 60-lb. unit will have no valve or switch to change the flow of air from hot to cold. You simply reverse the unit in the window, front to back ($150).

—•—

Some new premium gasolines may mean trouble for your car's fuel pump. Reason: Aromatic contents of some of these fuels cause rubber seals to swell and deteriorate.

The difficulty usually can be cleared up by having the rubber diaphragm in the pump replaced rather than replacing the whole mechanism, a costlier job. Engineers are working on tougher rubber (maybe plastics) to replace parts that may break down when they come in contact with high octane gas.

Another high octane danger: If the gas is splashed around the fuel filler opening, it can cause paint of the acrylic lacquer type—such as found on some late '57 and '58 cars—to peel off.

—•—

Life insurance companies are continuing to liberalize "special health risk" policies. So if you were refused coverage at one time it might be a good idea to see if the situation hasn't changed. Seaboard Life Insurance Co. of Miami, Fla., for instance, has just introduced a policy for heart patients and others between the ages of 22 and 55 who in the past have been considered "uninsurable." There are about 5-million extra-risk policies now in force in the U. S., with about 1.5-million holders having some heart impairment.

—•—

The greener grass needn't be your neighbor's this summer if you arrange for an early three-step repair job on your lawn: (1) first week, liming; (2) third week, fertilizing; (3) fifth week, seeding. These late-winter treatments are recommended at two-week intervals after the ground has thawed, unless there's a very wet spell—then the lawn should be left alone.

For best results, it's smart to get an analysis of the soil. Write to your county agricultural agent or state experimental station for detailed instructions on sending a sample. For additional tips, send for the booklet, Pointers on Making Lawns, U. S. Agriculture Dept., Washington 25, D. C. (5¢).

—•—

Tracking manmade satellites: You can calculate precisely when the Explorer or Sputnik II will pass over any particular spot in the Northern Hemisphere with a Pathfinder—two movable disks on a base board. One clear acetate disk is for plotting orbits and the other is a map showing time zones. The map disk is rotated beneath the acetate disk to illustrate the earth's rotation below an orbiting satellite. The Pathfinder is available from Library of Science, 59 Fourth Ave., New York ($1.95).

—•—

Doubtful about the Florida climate this year? Accommodations are still available in the Virgin Islands, Jamaica, Nassau, and Bermuda. The latter is described by travel agents as having the most to offer now in accommodations and pleasant weather.

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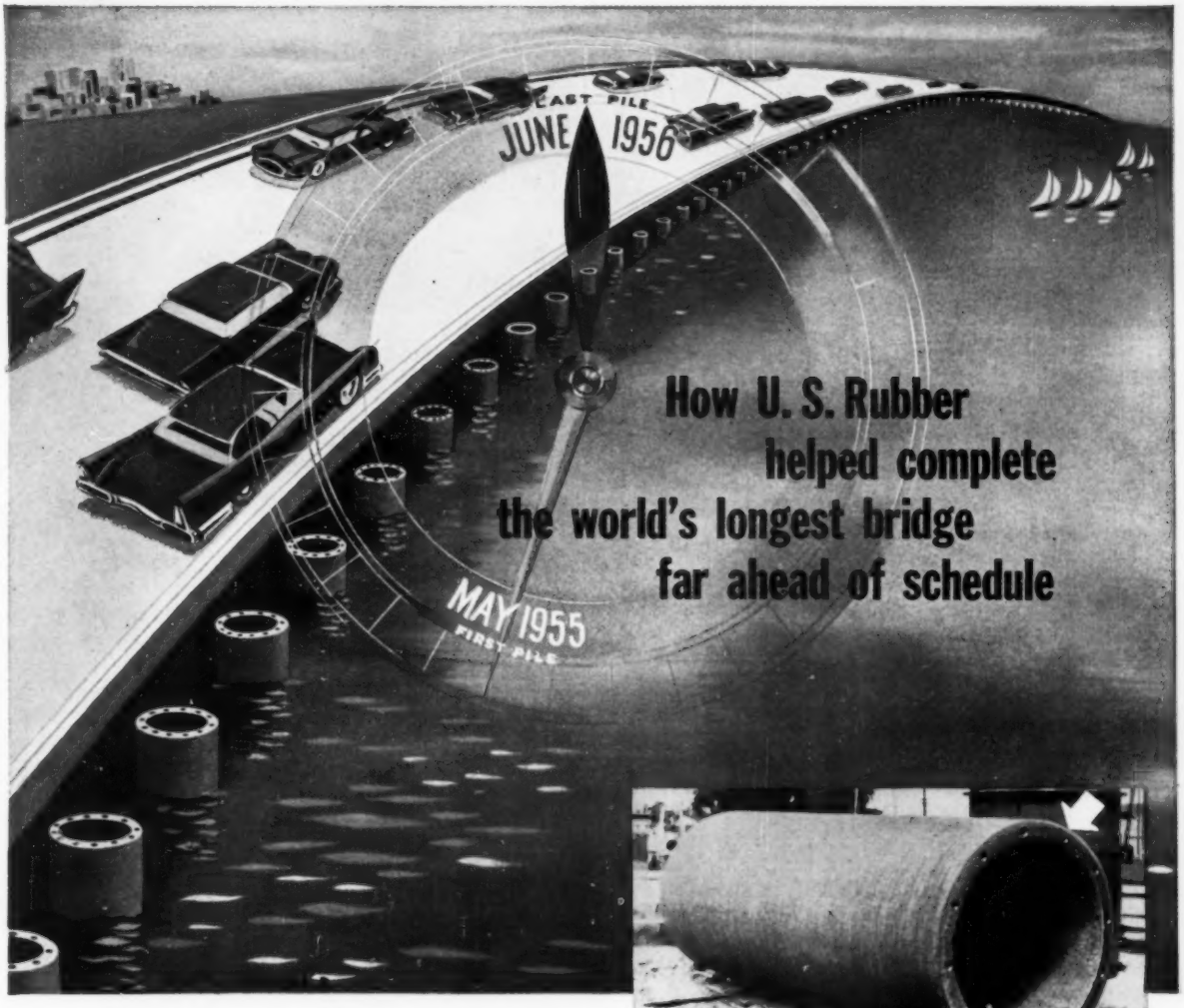
ENGINEERED RUBBER PRODUCTS



How U. S. Rubber helped complete the world's longest bridge far ahead of schedule

The Lake Pontchartrain Causeway at New Orleans is 24 miles long! That's a lot of bridge over the water. Using special assembly-line construction methods, the contractor turned out the job in one-fourth the time it would've taken had ordinary construction methods been followed.

U.S. Rubber's special #4830 Rubber Tubing was one of the big reasons why this gigantic project was completed so quickly. With this tubing, it was possible to prefabricate, in sections, the almost 8 miles of cylindrical concrete piling that supports the bridge. Here's how they did it:

The U.S. Rubber Tubing—75,000 feet of it—was used to pre-form round channels in the pile sections when they were cast. When the concrete hardened, the tubing was removed. Then the sections—usually six—were joined to make a single pile and high-tensile stressing wires were inserted through the channels. Naturally, the rubber tubing had to hold exacting tolerances as the concrete set so that the channels' diameters would always be precisely uniform for the entire length of the finished pile. And the tubing had to be strong, easy to handle, and abrasion resistant in order to be used over and over again.

54" o.d. section of finished pile showing precise round channels formed by U.S. Rubber Tubing. There are 12 of these cores in every section. Each core has a diameter of 1.375 inches.

There are many construction jobs right now where U.S. Engineered Rubber Products are helping to make shortcuts. For complete information and expert engineering assistance, contact us at Rockefeller Center, New York 20, N. Y.

Mechanical Goods Division

United States Rubber

See things you never saw before. Visit U.S. Rubber's New Exhibit Hall, Rockefeller Center, N.Y.

In Production

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New Entry in Ferromanganese Field Aims at a Market Due to Expand

Pittsburgh Coke & Chemical Co., a diversified producer of raw materials derived from coal and iron, this week diversified again, in what may prove to be one of its brightest moves. It added standard ferromanganese to its product list, converting one of its two Pittsburgh blast furnaces for the job.

This makes PC&C one of the two non-captive U. S. producers of ferromanganese by the blast furnace method, and in a strategic position to tap a market that almost has to grow. No ton of steel is poured without ferromanganese—and something like 15 lb. to the ton, chiefly to eliminate sulphur.

The two largest ferromanganese producers—U. S. Steel and Bethlehem—already use the bulk of their own ferromanganese and will soon use an even larger share.

In turning to ferromanganese, PC&C gives up about half its capacity of merchant iron. But it expects to profit from substituting $275-a-ton ferromanganese for $66-a-ton iron, even with the higher production costs.

Besides its newly converted Pittsburgh blast furnace, PC&C has a small blast furnace at Struthers, Ohio, which is uneconomical for its present production of merchant iron—iron that is made not on order but to be stockpiled till a customer appears. The Struthers furnace could be shifted back and forth from iron to ferromanganese as the market dictated, with the big Pittsburgh furnace handling the base load.

With its two furnaces, PC&C is more centrally located than its one non-captive blast furnace competitor, E. J. Lavino & Co., which has its plants at Sheridan, Pa., and Reusens, Va. PC&C believes some 80 steel producers are potential customers. **On the minus side of its new venture, PC&C will have to cope with long-term commitments and high inventory costs because almost all manganese ore used in the U. S. is imported.**

Actually, quite a few other companies make assorted grades of ferromanganese. One of them, New Jersey Zinc, turns out spiegeleisen, the others all use relatively high cost electronic furnaces, which produce low-carbon ferromanganese, for which blast furnaces are unsuited.

• • •

Special Tanker May Be the Answer To Wide Use of Liquefied Natural Gas

Tankers loaded down with liquefied natural gas may soon be almost as plentiful along the ocean shipping routes leading to Europe, Japan, and the other fuel-scarce nations as the familiar oil tanker. Continental Oil Co. and the Chicago Stockyards Co. announced this week that their jointly owned subsidiary, the Constock Liquid Methane Corp., will start shipping methane gas to England within the next couple of months.

The natural gas, refrigerated to a minus 285F to convert it from a vapor into a liquid, will be carried by a 340-ft., 35,000-bbl. tanker being converted at a cost of $4-million by the Alabama Dry Dock & Shipbuilding Co. Constock's partner in this initial venture is the British Gas Council, which is putting up $2-million toward converting the tanker and spending another $1-million for terminal facilities in England.

Long talked about as a solution to the problem of what to do with all the untapped natural gas resources of the Venezuelan and Persian Gulf oil fields, this type of venture was always considered theoretically attractive because methane contracts in the ratio of 600 to one when liquefied.

But though the economics were attractive enough, the stumbling block until now has been finding a way of guaranteeing that the liquefied methane could be kept at a minus 285F all the way across. Constock feels its new tanker will do the trick.

• • •

Boeing Sets Up New Group to Handle Both Basic and Applied Research

Boeing Airplane Co. has begun a basic reorganization of its technical research and new product development operations, according to Pres. W. M. Allen. The company is establishing a corporate scientific research organization under the direction of W. E. Beall, senior vice-president and E. C. Wells, vice-president, engineering.

The new research wing, under the name Boeing Scientific Research Laboratories, will function in both basic and applied science. Boeing will continue to handle the development of existing product lines in the engineering and research departments of its operating divisions.

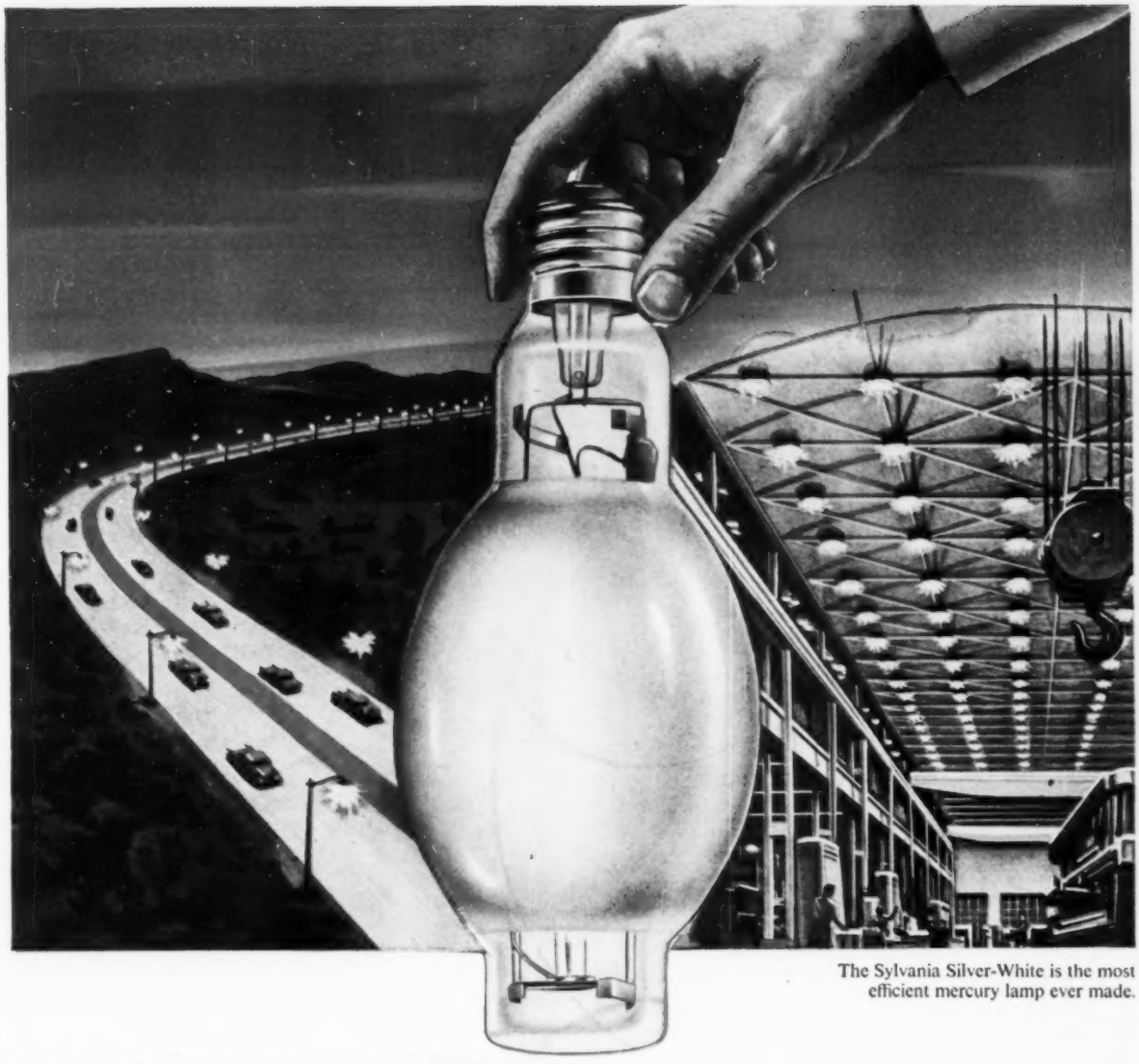
• • •

Production Briefs

Low temperature techniques developed by General Electric now coat electronic picture tubes with a much thinner phosphor film, making possible greater detail, or resolution, in television or radar pictures. Because thin coatings are transparent, incident light from outside is not reflected, thus increasing contrast between light and dark areas. First jobs for the new coating process will be military.

Jones & Laughlin Steel Corp. is shutting down its Cleveland works for a major modernization and expansion job centered around a new roughing mill. The company doesn't say how long the layoffs affecting 3,200 of 3,400 employees will last.

Transatlantic television could be transmitted by doubling the band width of the British-Canadian telephone cable scheduled for 1961, says C. O. Stanley, head of Pye, Ltd., electronics company in Cambridge, England. This would require more closely spaced repeater stations but would enable the cable to handle several hundred simultaneous telephone messages or a television signal.



The Sylvania Silver-White is the most efficient mercury lamp ever made.

For highway . . . or high-bay

. . . the one-lamp answer to both lighting needs

Today's most efficient mercury-vapor lamp is the new Sylvania Silver-White.

The greater light output and superior color quality of the Silver-White makes it an effective, versatile lighting source . . . it serves the high requirements for such widely different applications as highway lighting and high-bay plant illumination with unequalled efficiency.

Sylvania's Silver-White actually delivers up to 33% more lumens of light than previous color-improved mercury-vapor lamps. The 100-watt lamps, for example, are producing an unprecedented 4000 lumens in actual installations.

Sylvania Silver-White lamps cost no more than conventional color-improved lamps—but offer the combined economies of superior light output and superior construction.

Silver-White lamps are available in 100-, 175-, 400-, 700-, and 1000-watt types to meet the needs of industry for efficient high-bay indoor lighting and outdoor illumination for parking and loading areas . . . and for the governmental requirements for effective highway lighting.

For complete information about the Sylvania Silver-White Mercury Vapor lamp, call your local representative, or write:

SYLVANIA ELECTRIC PRODUCTS INC.
Lighting Division, Dept. 8L-1401
60 Boston St., Salem, Mass.
In Canada: Sylvania Electric (Canada) Ltd.
Shell Tower Building, Montreal

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to a great future
for your plant

"The Greate Road" of 1624 ran less than a mile between the old and new parts of Jamestown. Even half a century later, when Sir William Berkeley drove out in his coach, he could do little more than travel "The Iron Bound Road" six and a half miles to the present site of Williamsburg.

Virginia's highways of 1958 form a modern 49,000-mile network to serve your plant. Over them, the South's conservative, home-rooted manpower reaches your parking lot. And along the State's heavy-duty highways, truck lines complement railroads to bring you Virginia raw materials from mine, forest, farm and fishery . . . or speed your finished products overnight to great markets of the Northeast, South and Midwest.

Along Virginia highways you will find almost any combination of advantages your new plant needs. Ample industrial water. Abundant electric power. Coal and natural gas. For site-finding help in this land of mild climate, thrifty government, and pleasant living . . . write, phone or telegraph in confidence

Virginia Department of Conservation and Development
DIVISION OF PLANNING AND ECONOMIC DEVELOPMENT
State Office Building, Richmond, Va. Telephone MI 4-4111, Ext. 2911

Fastening Tool Feels Its Way Along a Wall

One of the drawbacks of pistol-type fastening tools actuated by powder cartridges has been overcome in a new gun devised by Ramset Fastening System, a division of Olin Mathieson Chemical Corp. (picture, above).

Ordinary fastening guns will often fire right through a thin partition if they miss a beam or stud. But Ramset's brainchild is rigged to catch the fastener just in time if it doesn't hit a solid spot. It can be used to drive fasteners into hollow cinder blocks—a practice usually not recommended with tools of this sort—and other such materials.

Called Flite-Chek, the gun sells for $149.50.

Plywood Stickum

Foamed glue developed by Arthur D. Little promises better coverage, stronger adhesion, and less waste.

The problem of joining layers of plywood is a recurring one in the plywood industry. A good glue is expensive, often loses effectiveness by oversaturating the wood, sometimes results in erratic coverage and waste. In addition, many glues can be used only on top-quality timber.

A new technique involving foamed adhesives may knock out some of these bugs, according to Arthur D. Little, Inc., which has been working on the problem in collaboration with American Forest Products, Inc., and two major plywood operators. The new method is said to provide better coverage, stronger adhesion, and less waste.

In the foaming process—a combina-

The men of SHARON STEEL...they make quality a tradition

PHOTOGRAPH BY KARSH OF OTTAWA

'Scarfs' are always in style with the men of SHARON STEEL

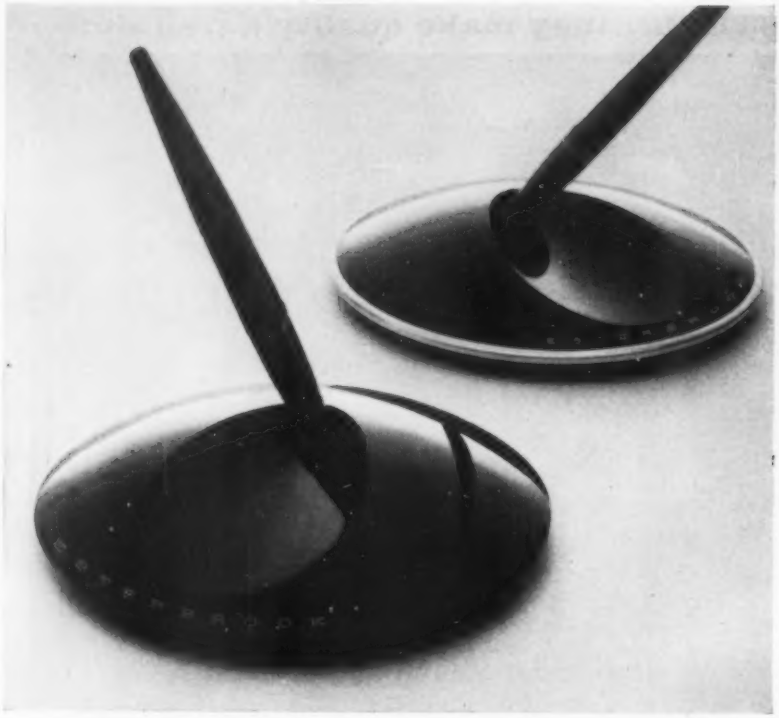
These "scarfmakers" tend to their knitting using oxy-acetylene torches for needles. They are steelmen and "scarfing" is the term they use to indicate a process of burning out defective areas on the surface of semi-finished steel.

The better this is accomplished the finer the finished steel; and these men have proved they are experts at their jobs—vital members of the Sharon team that consistently provides industry with the finest steels.

SHARONSTEEL

207

SHARON STEEL CORPORATION, SHARON, PA.



writes 6 months without refilling

This handsome RECORDER* ball point desk set gives truly dependable service—superb writing quality. Writes instantly—at a paper's touch. Once it starts writing it doesn't stop—writes for a full six months in normal use without requiring a refill. Steady, sure service, too—no ink "flooding" or "starving." The strikingly modern Esterbrook RECORDER comes with red, blue or black ink . . . fine or medium point. Available in black or your choice of high fashion colors. Only $2.95 at list for complete set in black—$3.95 for colors and black chrome-banded de luxe model. In office or home it decorates any desk.

WORDATHON BY Esterbrook

New WORDATHON* Refill Cartridge writes up to five times longer than ordinary ball point refills, gives a full six months' service—only 69¢.

*Trade Mark

RECORDER BALL POINT DESK SET BY Esterbrook

tion of special formulation and modified spreader equipment—air is beaten into the glue to expand the volume four to five times without increasing the amount used. ADL worked about two years to establish the proper stability and to control foaming.

• **Money Savings**—Based on extensive tests with Douglas fir plywood, ADL says the process could result in annual savings of over $2-million in manufacture of this product alone.

ADL thinks the process could be applied immediately to the manufacture of particle board, gummed paper, pallets, decorative overlays, and boxes. At the Fresno (Calif.) plant of American Box Co.—a subsidiary of American Forest Products—where the technique is being tried out, tests are being run on TKV, a packaging material that bonds paper to wood. Use of the foaming process is expected to cut present glue costs of $80,000 per year for one machine by 10%.

• **First in U.S.**—Foamed adhesives with urea resin glues have been used in Europe for some years. But this is the first general application of the technique on phenolic resin and other adhesives used widely in U.S. forest products.

ADL says that ultimately it will license the process to clients, developing special formulations and modifications in spreader equipment.

NEW PRODUCTS BRIEFS

A wiggle in the ridges around the middle of steel drums enables two 55-gal. cans to fit together tightly. They can then be neatly handled by lift trucks in groups of four. The design was developed by Signode Steel Strapping Co., Chicago, and Vulcan Containers, Inc., of Bellwood, Ill. Vulcan will market the drums at the same price as standard steel containers.

•

Vacuum-deposited resistance elements in a new series of variable electrical resistors and potentiometers work better in tough environments, according to a claim by the manufacturer, Servomechanisms, Inc. The devices, rated up to 2 w., offer stepless variations of almost infinitely fine resolution.

•

Sanding or "polishing" of large wood panels can be mechanized with a new automatic belt sander announced by Curtis Machine Div. of Carborundum Co. Usually, an operator is needed to push the sanding belt against the panel with a hand block. The new machine actuates blocks traveling along the 6-in.-wide belt. It will polish a panel 8 ft. in length and unlimited in width.

Expert on Automation...

No engineer, today's lady of the house can still tell you plenty about automatic control of complex work cycles—through automation made possible by the low-cost, dependable Mallory Timer Switch.

MODERN Mrs. America has learned a lot about automation as she moves about her kitchen.

First came the automatic washing machine. Then the dishwasher. The clothes dryer was next. And now the newest wife-saver of all—the combination washer-dryer. Each is a practical lesson in automation that pays off in booming sales for manufacturers . . . and in more time for fun for housewives everywhere.

This two-way payoff is the result of a versatile timer switch developed years ago by Mallory to mastermind the operation of the first automatic washing machines. Modified and improved to give automatic control of ever more complex work cycles, the Mallory switch has proved its dependability in millions and millions of home appliances. It was the natural choice to provide a single control for operation of the new combination washer-dryer.

Now Mallory timers are going to work in vending machines that cook to your order . . . offer low-cost automatic control for products ranging from test equipment to bowling pin setters.

Bringing the benefits of automation to the American home, factory and farm is but one field of endeavor for Mallory . . . the company at home in tomorrow. Mallory serves the Nation's growth industries with precision products and unique engineering experience in electronics, electrochemistry and specialized metallurgy.

P. R. MALLORY & CO. Inc.

MALLORY

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Electromechanical • *Resistors, Switches, Tuning Devices, Vibrators*
Electrochemical • *Capacitors, Mercury and Zinc-Carbon Batteries*
Metallurgical • *Contacts, Special Metals, Welding Materials*

P. R. MALLORY & CO. Inc. INDIANAPOLIS 6, INDIANA

HARASSED PARENT—V.-P. Francis K. McCune, head of GE's Atomic Products Div., is proud of offspring's growth, but finds . . .

An Atomic Baby Is No Cinch

General Electric, with 12 years' atomic experience and a multimillion stake, still faces king-size technical problems, slim profits, secrecy handicaps—but it's gambling on having an inside spot when the atom gets into the money.

Twelve years ago General Electric Co. took over operation of the government's big Hanford Plutonium Works, and thereby plunged itself to the hips in atomic development. It was a logical move because, even then, the atom loomed as an important source of electric power, and power equipment has always been GE's major business.

Today GE is even more deeply involved. It has one of the largest corporate staffs—some 14,000 people—at work on the atom, under direction of V.-P. and General Manager Francis K. McCune (picture). It is working on three important projects for the government, and has a separate commercial department. It may well have tied up more of its own money in atomics than any other company.

Yet all this effort has gained GE relatively little in the way of profits or prestige. The lack of profits at this stage is not surprising. The commercial market for atomic equipment is just developing, and profits are slim on government contracts. But in prestige, GE has taken a buffeting without parallel even in this field where everyone has had rough going. Its experience spells out the problems a company can get into in the new atomic field.

• **Troubles Everywhere**—Starting with Hanford, GE has run into trouble on every atomic project it has tackled. Many of these difficulties have been due to the fact that atomic energy is a new technology and everyone who enters it runs into colossal technical problems. GE, with more projects than most other

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SMALLEST (5½ x 5⅞ x 9⅞), LIGHTEST (7½ lbs.) and has everything. Excellent for meetings, conferences, dictation, training, etc. Complete with ultra-sensitive microphone, tape, take-up reel, and cordovan finish carrying case. $179.95. At leading appliance, radio and department stores.

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companies, was bound to run into more problems.

Again, a large proportion of its work has been on secret government projects. This kind of work is a double snare for companies worried about prestige.

To begin with, a company cannot point with pardonable pride to any significant success it has on a secret job. But even worse, when something goes wrong, the company can't—and the government won't—explain the difficulty. Word of delays and serious technical problems invariably leaks out, however, usually in the form of rumors that are highly unflattering to the company. GE has had more than its share of such rumors.

• **But Rewards Ahead**—Still, GE shows a surprising doggedness, if not outright cheerfulness, in the face of all this. It has yet to walk away from any atomic job, though a number of other companies have shed such work (BW—Nov. 9'57,p170).

Management is well aware that big profits from the atom are still in the future. But when that time finally comes, GE plans to be a major factor in the business. Meanwhile, with an eye on the future, the giant company can afford to keep money and manpower—both in large quantities—tied up in atomics. The unflattering rumors are annoying—but only that.

This is the kind of corporate size and toughness it takes to mount and maintain any large-scale venture in atomic energy at this stage of the art.

• **Big Outfit, Big Problems**—V.-P. McCune and his top executive staff have the formidable task of piloting GE's atomic projects through the present heavy seas of minuscule profits and king-size technical problems. McCune is head man as general manager of the company's sprawling Atomic Products Div.

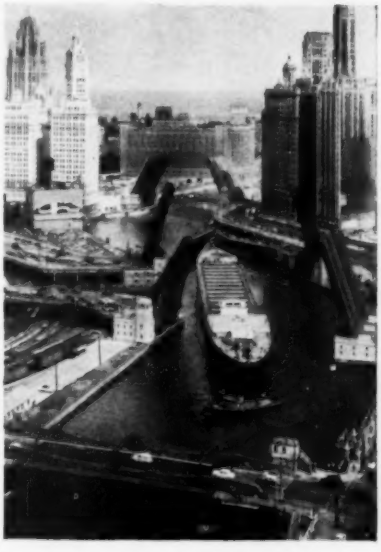
The division's commercial arm, the Atomic Power Equipment Dept., has a staff of 1,000 people at San Jose, Calif., manufacturing reactors and other nuclear gear for nonmilitary use. The other three branches of the division run government-owned plants and laboratories on a contract basis.

The largest of these, the Hanford atomic products operation, produces plutonium for weapons at Hanford, Wash. It has a staff of about 9,000 employees. The Knolls Atomic Power Laboratory (Schenectady, N. Y.; 2,100 employees) builds power plants for warships. The Aircraft Nuclear Propulsion Dept. (Lockland, Ohio; about 2,000 employees) is developing an atomic engine for military aircraft.

• **Heavy Gamble**—The commercial department is at once the most costly investment and the most promising source of future profits. GE spent millions for new manufacturing plant space

Set Your Site on Chicago-

Transportation Center of the Nation, Manufacturer and Marketplace of Mid-America!



You have tremendous advantages when you locate your plant in the Chicagoland area. For here is a major market for both industrial and consumer products and services.

It is the nation's center of transportation by railway, highway, skyway, waterway and pipeline. And soon, through the development of the St. Lawrence Seaway, Chicago will become a deep water port to all the markets of the world!

Spread out in all directions from Chicago as a center are the infinite resources of farm, range and mine. Power of all kinds abounds: electricity, gas, coal, water. Man-power and consumer-power is concentrated here. And cooperative local government and friendly banking facilities make it easier to do business.

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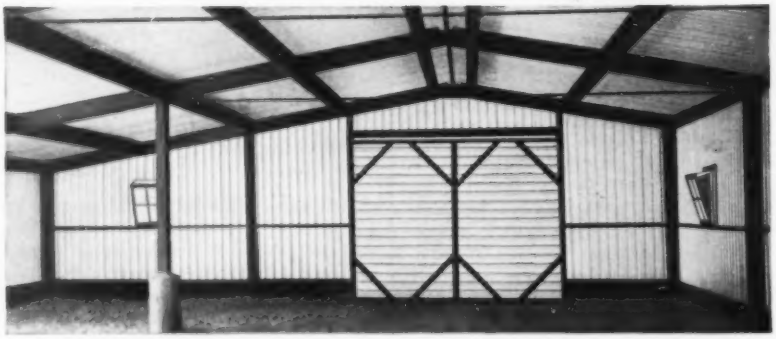

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". . . when something goes wrong the company can't—and the government won't —explain the difficulty . . ."

STORY starts on p. 154

and equipment at San Jose two years ago. It has committed $14-million for a supporting laboratory nearby (BW—Nov.9'57,p188).

The company may have almost as large a stake in the big atomic power plant the commercial department is building near Chicago for Commonwealth Edison Co. and several other utilities. This is a fixed-price deal—GE gets $30-million for the plant, $15-million for preliminary research and development. According to persistent trade rumors, which GE refuses to discuss, the R&D costs already have far exceeded the original estimate. Whatever the excess, if there is any, GE must absorb it.

• **Elusive Profits**—San Jose also has orders for several smaller reactors for both power and research use. It would need many more of these to run up a healthy profit for the department, however.

The industry has not yet learned how to build big atomic power reactors cheaply enough so that they will be both commercially attractive and profitable. But GE's gamble on the Chicago power reactor is beginning to look very good, indeed.

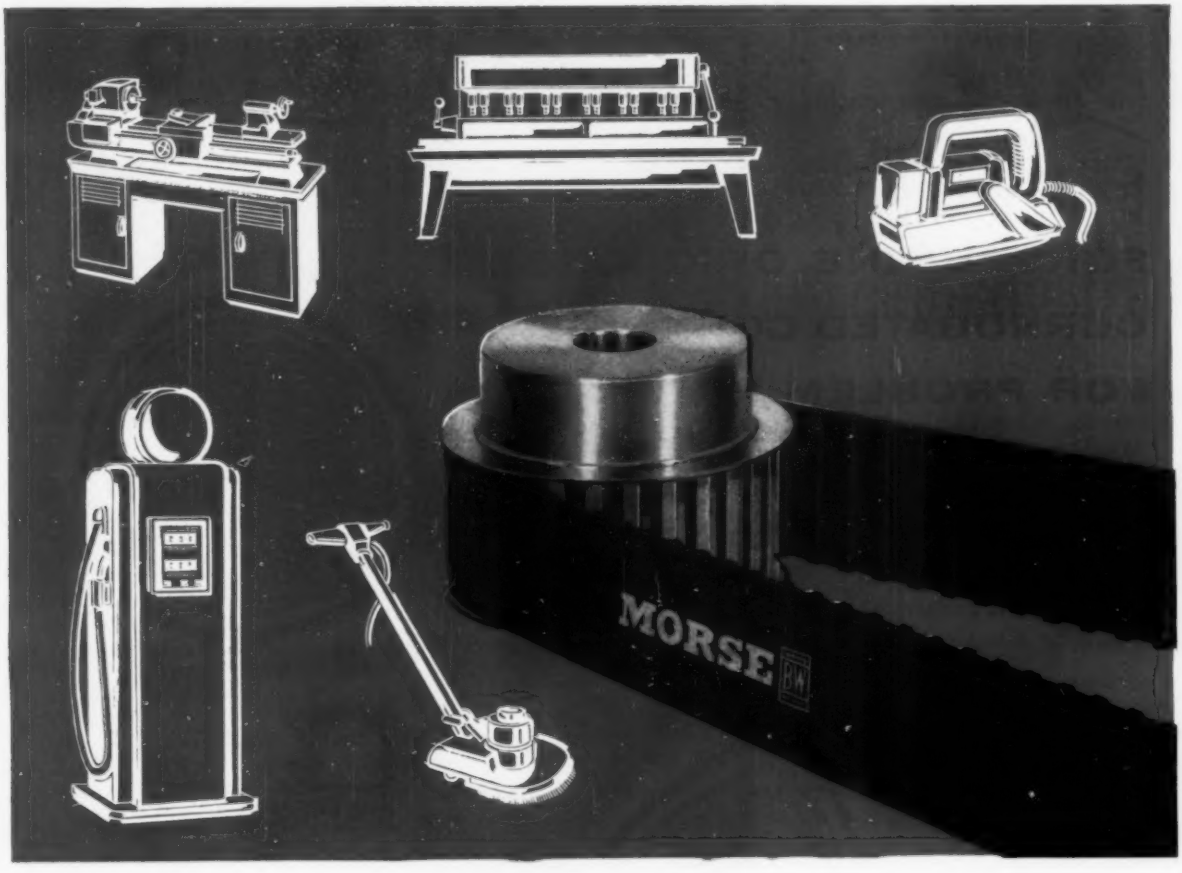
This is the so-called water boiler, which boils ordinary water in the reactor core and delivers steam directly to a turbine. Atomic Energy Commission scientists working with a similar, but much smaller, water boiler recently found it to be far more efficient than they had hoped (BW—Jan.11'58,p138). It is axiomatic in the trade that the larger the power reactor, the greater is its efficiency.

• **Hanford's Promise**—There's no great profit running an AEC plant like Hanford. For example, for one five-year period of operating the plutonium works, GE received its out-of-pocket costs plus a fee of one dollar.

The big job at Hanford is the separation of plutonium and unfissioned uranium from reactor fuel after it has been "cooked" in the plant's reactors. This is a job that will have to be performed for every atomic power plant that is built.

The experience at Hanford could put GE in a fine position to grab a share of this business.

General Manager McCune recently looked into this very subject. He found that the AEC has ample facilities to reprocess the fuel for all reactors now being built in this country. But the



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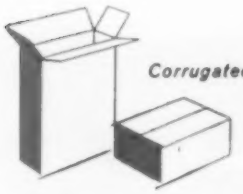

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". . . according to trade rumors, the R&D costs already have far exceeded the original estimate . . ."

STORY starts on p. 154

commission has publicly announced it wants industry to take over this job as soon as there are enough power reactors in operation to make it commercially worthwhile.

• **Less Rewarding**—Far less rewarding, so far, has been the work of the Knolls Atomic Power Laboratory. The lab built the propulsion plant for the Seawolf, the Navy's second atomic-powered submarine.

At the close of 1957, it had only two other Navy contracts—for development of a nuclear engine for a destroyer, and for two reactors to power a large submarine. Up to that time, GE's arch-rival, in both atomics and conventional power, Westinghouse Electric Corp., had built the engines for two nuclear submarines, and had orders for atomic power plants for 11 more submarines, a cruiser, and an aircraft carrier.

• **Nuclear Navy**—More than ordinary rivalry is involved here, however. The Navy, which is building nuclear-powered warships as fast as it can, is the first big customer for atomic plants. While the demand for land-based generating equipment is still some time in the future, the Navy's need is immediate and expanding. It is likely to be the industry's major prop until commercial business develops on a broad base.

GE is almost certain to get more Navy work, if for no other reason than that there will be so much of it. It might now have a larger share but for the dissatisfaction of some Navy brass with the Seawolf's propulsion plant.

Just what, if anything, is wrong with the Seawolf's engine is an official secret, of course. All military reactors are under the same wraps. That means the builder cannot discuss any phase of the reactor's construction or operation, even to defend himself against unwarranted criticism. This may very well be particularly distressing to GE in the case of Seawolf.

• **Tough Job**—The company took the rap last year when the sea trials were delayed at length while attempts were made to patch up a leaky superheater.

The oil-fired superheater was designed to raise the temperature of the reactor coolant after it left the reactor. The additional heat would create more steam in the heat exchanger. The extra steam, in turn, would produce more power—and speed—for Seawolf.

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". . . the Navy is the first big customer for atomic plants . . ."

STORY starts on p. 154

selected because it has excellent heat transfer properties. But it is extremely hard to contain. And in the Seawolf power plant it had to be contained in the core of the reactor (where it was heated), in the loop of pipes carrying it to the heat exchanger, and in the superheater.

Neither the Navy nor GE has given any details of what really happened. But according to disinterested but informed sources, the reactor was nearly completed when the Navy insisted on addition of the superheater. The story goes that GE objected and another firm built the superheater. Whether this report is correct or not, the outcome is a matter of record. The superheater leaked so badly it finally had to be abandoned.

• **Hanford's Early Troubles**—The company ran into similar secrecy troubles shortly after it took over Hanford in 1946.

Suddenly there were reports that the Hanford reactors were in trouble. At one point, AEC was said to be seriously considering shutting them down and building anew.

Hanford's original three reactors are still in operation. But no official explanation of what was wrong with them has yet been made by either GE or AEC. This despite the fact that the trade buzzed with a rumor that GE had assigned incompetent people to manage Hanford.

A more likely possibility is that Hanford ran into maintenance difficulties. In the early days, no one gave much thought to the reactors as long as they produced urgently needed plutonium. Reactor maintenance got no attention because it wasn't necessary. When GE took over the plant it thus inherited some growing problems.

• **Long Chance**—Whatever the early difficulties, Hanford now is unquestionably GE's most successful atomic venture. But so far most of the gains achieved have accrued to the government. Production of plutonium has been vastly increased. Unit cost of the metal has been cut to a fraction of its wartime cost.

A spokesman for the company sums it all up this way:

"Anything you do in atomic energy today is a gamble. You just do the best you can to see that your company makes the best possible gamble on the basis of the relatively little solid technical knowledge that is available." **END**

Prehistoric ground sloth statue, La Brea Tar Pits

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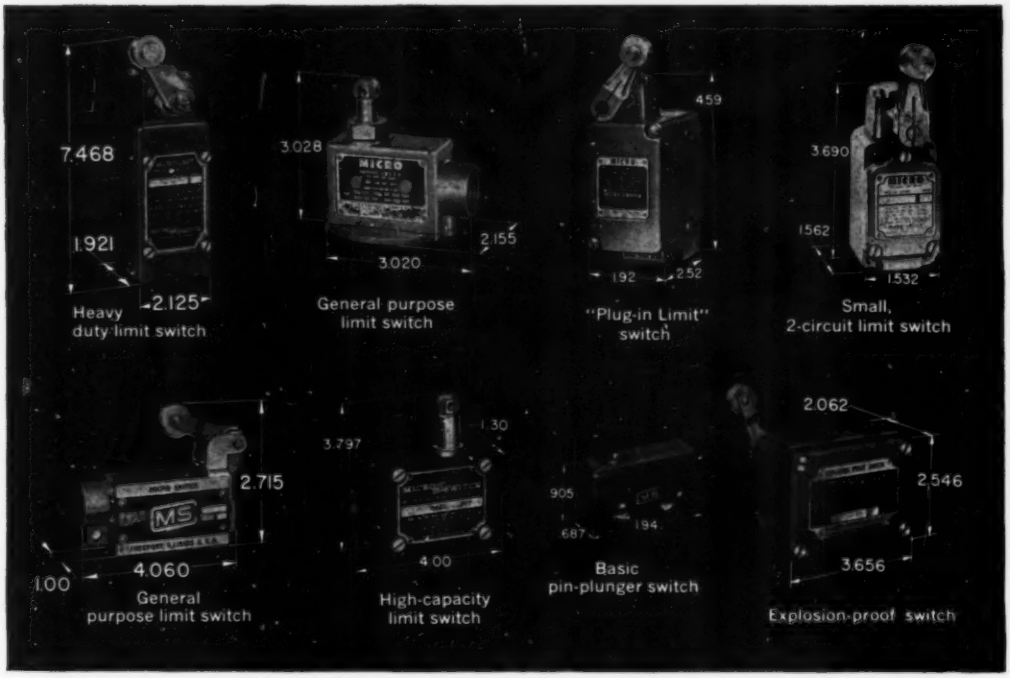

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Fresh Start for Oglebay Norton

For the first time in its century-old career in the coal and iron ore business, the Cleveland company owns as well as manages its operations. It took a merger of 10 family-held companies to set up the new concern.

For more than a century, Oglebay, Norton & Co. was known in Cleveland as a big name in iron ore, coal, and lake shipping, yet the company was actually only the manager—not the owner—of an intricate family of other companies.

This all changed last October, when Oglebay, Norton & Co. and nine other companies in which the Oglebay and Norton families held major interests, were merged into a new corporation, Oglebay Norton Co. The change was far more than a matter of punctuation, the deletion of a comma and an ampersand. It brought about a new corporate structure and—Clevelanders are coming to believe—the probability of public stock ownership in the next year or so.

As Clevelanders see it, the new Oglebay Norton Co. is setting itself for a period of expansion while, for the moment, it remains a closely held family corporation. The financial resources of the once-separate companies have been mobilized, and the way cleared for public trading in stock whenever new funds are needed.

• **Big Package**—The 10 companies that have been rolled into one have combined assets of $53-million and annual sales ranging between $50-million and $60-million. But until the merger, about all they had in common was:

• All the companies were managed by Oglebay, Norton & Co.

• All were partly owned by members of the Oglebay or Norton families, partly by other stockholders—some of whom had interests in only one company in the group.

Besides managing these companies, the old Oglebay, Norton & Co. managed other ventures owned by outsiders, notably the steel corporations. This kind of work—management on a fee basis—will continue. It represents only about 1% of the gross income of the new company, but it is regarded as a profitable and desirable part of the operation.

The intricacy of the relationship among the Oglebay, Norton companies is illustrated by the difficulty of bringing about the merger. In the end, it wasn't Oglebay, Norton & Co. that absorbed the others but a related shipping firm—Columbia Transportation Co.—which then took on the new corporate name. Columbia was chosen because it had the longest list of stockholders.

Other companies in the group were Montreal Mining Co., Ferro Engineering Co., Pringle Barge Line Co., Saginaw Dock & Terminal Co., Richwood Sewell Coal Co., Fairport Machine Shop, Inc., North Shore Land Co., and Standard Box Co.

• **Sources of Income**—The new company, like the old one, is organized according to functions. Vice-presidents are in charge of such areas as "ore sales," "coal operations," and "transportation and docks." Within each field, the executive runs the show for both Oglebay Norton's own ventures and those under management contract for other owners.

About one-third of the total income is derived from operation of ships, another one-third from coal, about 10% from iron ore, 1% from management contracts. The rest comes from miscellaneous operations, particularly by Ferro, which makes "hot tops," the ceramic part of ingot molds.

• **Just Growed**—Like its principal competitors in the Lakes ore trade—M. A. Hanna Co., and Pickands Mather & Co.—Oglebay Norton began as a partnership in the mid-1800s. Cleveland Cliffs Iron Co., the other of the Big Four, began as a corporation. The Oglebay and Norton predecessors were grocers who now and then acted as sales agents for a shipload of ore that was brought down from the Lake Superior region.

Typically, such partnerships began investing in mining property themselves. And inevitably they would come across a deal that interested one partner but not the others, so new partnerships would be formed for such ventures. However, the basic partnership would manage all of these businesses, and some businesses for outsiders as well.

In the early 1920s, most of these partnerships were incorporated. Taxes on business profits, personal income, and—more important in these family enterprises—inheritances were rising sharply. Pickands Mather, which is still a partnership, was, Clevelanders believe, plunged into complicated accounting about a year ago when a senior partner died.

• **Split Ownership**—A complex structure was made even more complex by the fact that some of the managed companies in the Oglebay Norton group are made up of still smaller companies. This was common practice in the ownership of ore boats. Every time a captain in the ore fleet wanted to build himself a ship for independent operation, he would arrange financing wherever he could and give each backer a share of each vessel.

When Columbia, for example, was formed out of the fleet of the late Capt. W. C. Richardson, it comprised 10 operating companies with a combined fleet of 11 ships. About 100 stockholders were involved.

When Columbia recently ordered a new bulk freighter with a capacity of 25,000 gross tons of ore—the largest on the Great Lakes—it had Northwestern Mutual Life Insurance Co. build the ship on an agreement to lease it to Columbia. The old Oglebay, Norton & Co. didn't have the combined financial strength it has today to back Columbia's project.

• **Hard to Manage**—Oglebay Norton also owes its merged existence to other management problems that cropped up in the old loose federation. Each company had to run for the maximum profit of its own set of stockholders, so executives were discouraged from making decisions for the common good at a cost to their own companies.

At times, for example, lake shipping couldn't meet demand, and the coal company that could assure delivery had a sales advantage. However, limestone cargoes were slightly more profitable than coal, so Oglebay Norton's manager in charge of Columbia Transportation Co. would book limestone instead of coal. Thus, the coal mines also managed by Oglebay might lose their sales advantage.

Other snags and inefficiencies also helped to persuade the Oglebay group's stockholders that merger was desirable:

• One of the family of companies on occasion had to borrow money from the bank while others had funds to spare.

• The mining companies sometimes found themselves unable to send a given geologist on a rush job because he was on the payroll of one of the other companies.

• Companies in related fields stockpiled identical parts in the same locality, doubling or tripling the spare parts inventory.

• The accounting problem grew to be perhaps the most serious of all the management inefficiencies. It became almost impossible to allocate the pay of each central office worker fairly

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among the companies he served in any week.

• **Mixed Time Sheet**—In one typical pay period before the merger, for example, one executive broke down his time like this: 8% for "ore and mineral sales and sales accounting," 2% to the St. James Mining Co. (managed for Bethlehem Steel), 3% to "coal management and accounting," 6% to "coal sales and sales accounting," and 16% to other business for Oglebay. All of this 35% was charged to the management firm, to be paid for out of the fees.

The rest of the executive's time was paid for by other companies in the group—22% by Columbia, 6% by Montreal Mining, 10% by Ferro, 18% by Saginaw, 2% by Fairport, and 1% by Pringle—except for 6% paid by Toledo, Lorain & Fairport Dock Co., an outside company. And the time sheet has spaces for half a dozen other companies for which the executive didn't happen to work that period.

• **Putting Merger Across**—For all these reasons, Oglebay executives had long been agitating for a consolidation of the mining and shipping empire. For a generation, though, each suggestion for such a change was slapped down by influential holders of stock. And the more diversified the holdings became, the harder it looked to arrange any merger so no one in the tightly knit group of owners would come out on the short end.

Even the Oglebay and Norton families themselves were split. (They own the largest block of stock, but nowadays less than a majority.) Insiders were in favor of a merger, but other members who aren't directly connected with the companies were opposed to it. Then a management report in 1956 jarred the last holdouts into compliance.

• **Survey Does the Trick**—In that year, Pres. H. S. Taylor and Exec. Vice-President E. W. Sloan, Jr., decided, as an associate put it, "somebody had to be strong enough to knock heads together." They called in a management consulting firm for a complete survey of the situation. The results were exactly as expected: an urgently worded suggestion that the 10 companies be merged for efficient operation.

After this report had been circulated, the general idea of merger got an O.K. from most of the stockholders, and Morgan Stanley & Co., investment bankers, were asked to work out the details.

It took months to draw up a complicated formula that attempted to measure not only present but also potential value of stockholdings. When the detailed proposal was put to the stockholders of the 10 companies, 98.5% of the proxies were returned—and 99.96% of these favored the merger. Sloan said it was "a miracle." **END**

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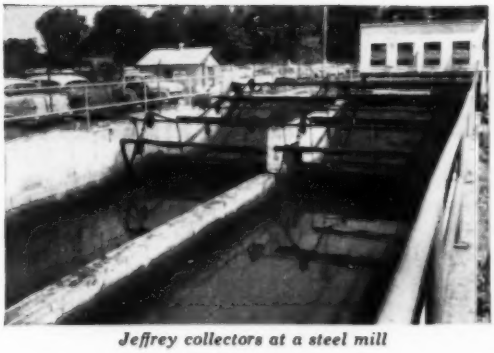

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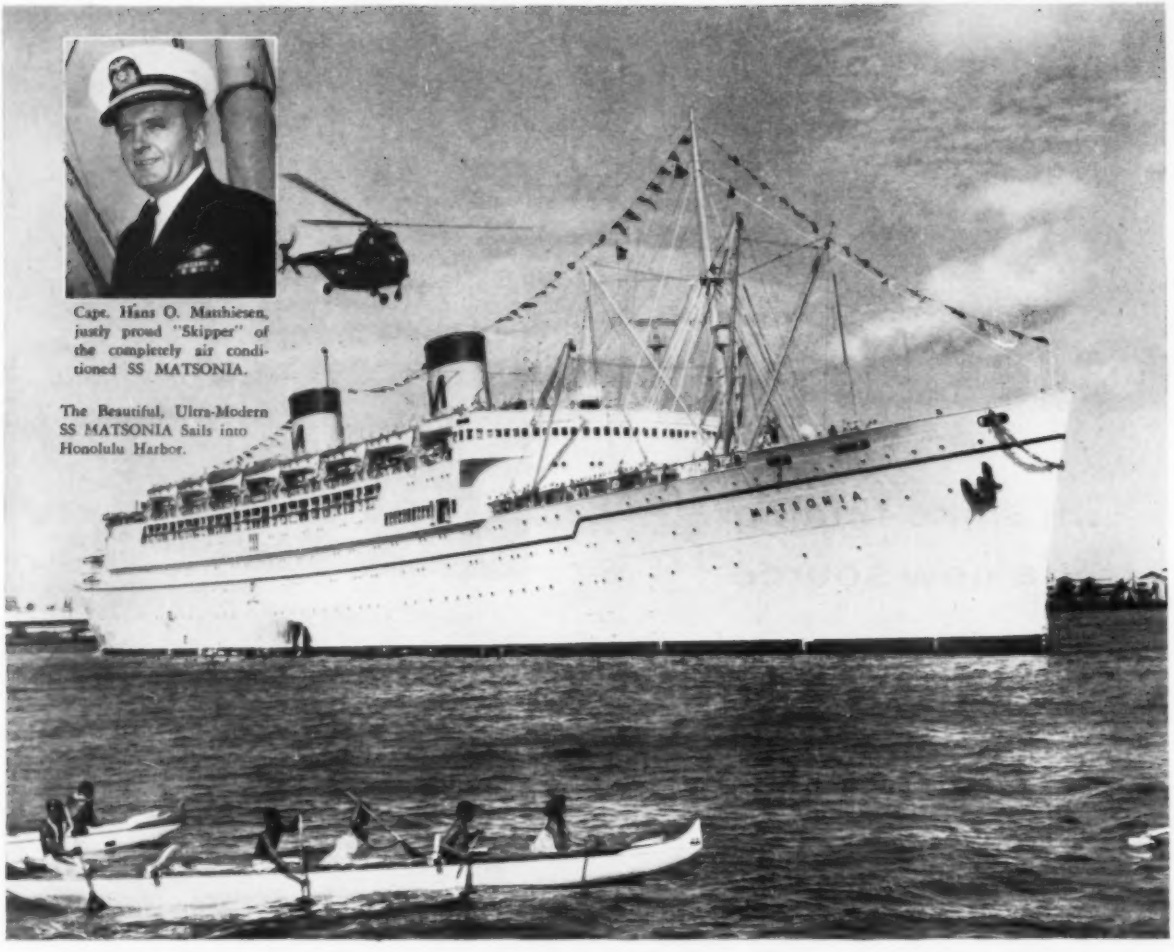

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This is certainly true of the all-new MATSONIA. Unrivalled safety, luxury, convenience and comfort welcome the fortunate passengers who sail on this pride of the Matson Lines. For example, passengers and crew can "tune-in" just the climate they desire in each room by simply turning a dial.

Vital to the MATSONIA's unique, new selective air conditioning and ventilation system is a huge battery of "Buffalo" Fans. It is logical that "Buffalo" Fans were selected for the important air moving job on this super-liner. During the past 81 years, "Buffalo" Fans have earned a world-wide reputation for highest efficiency, extremely quiet operation and long-lasting dependability.

Just as Matson Lines depend on "Buffalo" Fans for *reliability at sea*, so *you* can depend on "Buffalo" Fans for your own air jobs... ashore or afloat. Insist on "Buffalo" Fans for *your* next air moving project... expert engineering service is as close as your nearby "Buffalo" representative.

The MATSONIA's Chief Engineer, Helge Lundby, is pleased with the fine performance of this and the many other "Buffalo" Fans aboard his ship.

"Buffalo"

BUFFALO FORGE COMPANY

Buffalo, N. Y.

Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

VENTILATING • AIR CLEANING • AIR TEMPERING • INDUCED DRAFT
EXHAUSTING • FORCED DRAFT • COOLING • HEATING • PRESSURE BLOWING

In Management

• • •

Court O.K.'s Workmen's Compensation For Carpenter Hurt on Coffee Break

The coffee break is an integral part of the work day, according to a decision of the Wisconsin Supreme Court, and injuries occurring during this break are covered by the state workmen's compensation law's "personal comfort" doctrine.

The case arose from injuries suffered by Henry Krause, a Hustler (Wis.) carpenter, when his employer was driving him to a luncheonette during such a break. The car in which Krause was riding was involved in a two-car crash, and Krause sued the two insurance companies covering the two drivers.

The state high court dismissed Krause's suits, suggested that he file with the state Industrial Commission since the injuries were sustained in line of work. The decision reversed a lower court finding the injuries sustained by Krause were "not within the scope of his employment at the time of his accident."

Supreme Court Justice George Currie wrote that "the act of drinking a cup of coffee during the hours of employment is certainly one that ministers to the personal comfort of an employee. Therefore, the fact that the plaintiff was not actually wielding a hammer or a saw at the time of injury is wholly immaterial."

• • •

Business Attacks IRS Ruling That Limits Deductions for Institutional Ads

U.S. corporations and admen are hoping to bring to a head a latent conflict with the Internal Revenue Service over the deductibility of institutional advertising when it verges on political activity.

In quick succession:

• The Southwestern Gas & Electric Co., Shreveport, La., filed suit against the government to get back taxes paid on such advertising that the government disallowed on returns for the years 1947-1950. The ads were run in opposition to the Southwestern Power Administration, a federal agency. The company claims IRS is misinterpreting the code.

• An article in Editor & Publisher, newspaper trade magazine, proclaimed that "the battle has been joined . . . on whether institutional advertising is a legitimate business expense."

• The Advertising Federation of America, representing advertisers, agencies, and media, asked IRS Commissioner Russell C. Harrington for public hearings on a proposed regulation pertaining to institutional advertising that the AFA terms a "tax penalty on institutional, educational, and long-range advertising."

The proposed IRS regulation, to go into effect under the 1954 code once all the bugs are worked out, was first published in July, 1956, brought no complaints from advertisers at hearings held Sept. 11, 1956. The new rule, substantially the same as under the 1939 code now in effect, would read: "Expenditures for lobbying purposes, for promotion or defeat of legislation, for political purposes, or for development or exploitation of propaganda (including advertising other than trade advertising) relating to any of the foregoing purposes, are not deductible from gross income."

The proposed rule came into the news last spring when Sen. Estes Kefauver (D-Tenn.) asked the IRS its stand on the advertising of the Electric Company Advertising Program, sponsored by 122 privately owned electric companies. After the inquiry, Harrington sent IRS field men a memo reminding them of the existing regulation. N. W. Ayer & Son, Inc., which handles ECAP, says that since then IRS field men have asked for copies of certain ads, but that there has been no evidence of a "crackdown."

• • •

Servel, Shopping With a Full Wallet, Describes the Ideal Company to Buy

Servel, Inc., with a big tax loss carry-forward and a store of cash from selling most of its assets (BW—Sep. 21'57,p162), has detailed exactly what it's looking for in a business to buy. The Utopian company would:

- Be long established.
- Be in a non-static industry.
- Have earnings long stable.
- Have pre-tax profits between $5-million and $7½-million.
- Have physical assets in "first-class condition."
- Have good management.
- Be located mainly in the U.S.
- Cost no more than $25-million in cash.

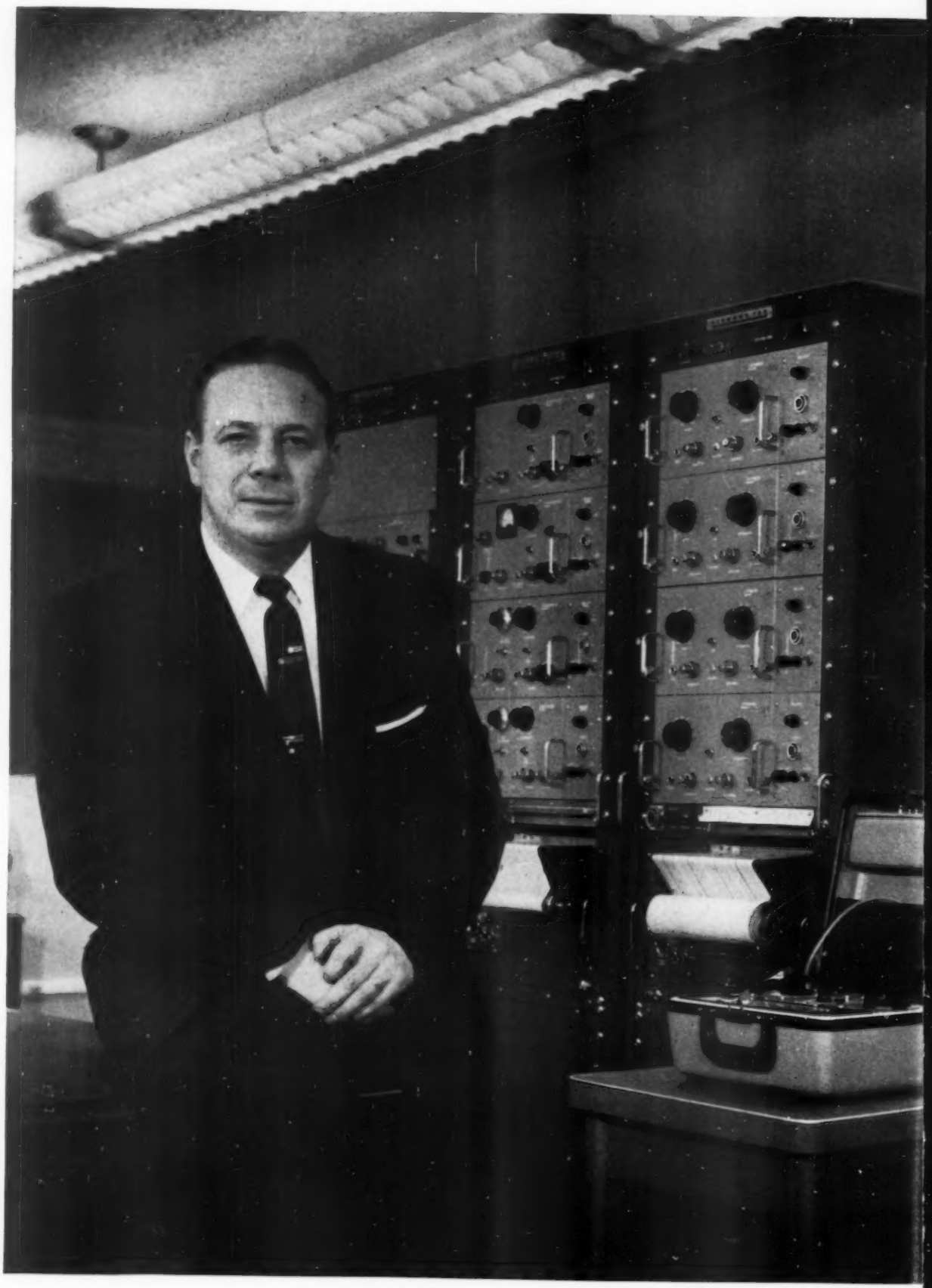
• • •

Management Briefs

Pay at industry levels is scheduled for teachers in Winnetka, Ill. Voters are expected to approve next April a plan to raise **elementary school teacher salaries to $12,000**, plus broad fringe benefits. Current high for teachers' salaries is paid by Great Neck, N. Y., with a top of $10,000.

Philadelphia & Reading Corp., the old-time anthracite producer rejuvenated by Howard A. Newman (BW—Apr.20'57,p99) and diversified by addition of an underwear company and a boot maker, has given added proof of its vitality. It declared a quarterly dividend of 40¢, its first dividend in 4½ years.

James A. Walsh, a member of the executive committee of the Boston & Maine RR, heads a group of stockholders in **Bullard Co.**, Bridgeport machine tool maker, that wants representation on the board. Walsh says the group owns more than 10% of the outstanding stock, wants to stop the company's "drifting."



"ADVERTISING PRECEDES OUR SALES REPRESENTATIVES, INCREASES COMPANY RECOGNITION"

Alfred E. Lonnberg, Vice-President Sales of Sanborn Company, tells how business magazine advertising helps sell oscillographic recording systems and allied instruments:

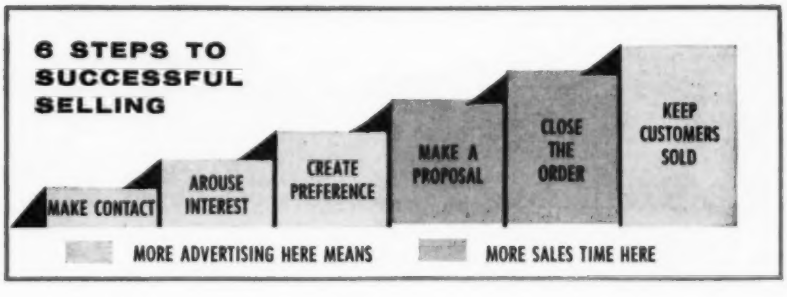
"Business magazine advertising is the quickest and most efficient means we have of informing our market of the features of our products and indicating the character of our company. Recognition for Sanborn, built in this way, gives our sales representatives the advantage of being backed by a manufacturer known to be well established in its field.

"As an integral part of our complete advertising program, which in turn is an essential element of our total sales effort, business magazine advertising receives its share of credit from our management for the steady growth and success of Sanborn Company."

IF WHAT YOU MAKE OR SELL is bought by business or industry, you'll find that the consistent use of business magazine advertising will help "mechanize" your selling. Such advertising enhances your corporate image, creates preference for your brand . . . delivers your sales messages to the right men with minimum effort. By *concentrating* your advertising in one or more of the McGraw-Hill magazines serving your markets, you will create the recognition that gives your salesmen more time to make specific proposals and close sales.

McGRAW-HILL PUBLICATIONS

McGraw-Hill Publishing Company, Incorporated
330 West 42nd Street, New York 36, N. Y.



clues:

To The Solution of Management Men's Problems

Published: weekly — closes 12 days in advance.

Rate—$10.15 per line ($5.08 per line for position wanted ads), minimum 2 lines. Allow 5 average words as line; count 2 words for box number.

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EMPLOYMENT

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Man 34, successful in own business, experienced in materials handling, inventory control, distribution, warehousing, trucking and personnel. Desires position in any of these fields where you are having problems. Will relocate. PW-7271, Business Week.

Technical Sales—Chemical, Related Industry Organic Chemist M.S. 20 months S. A. Tech. Service. Resume. PW-7237, Business Week.

Executive Assistant. 8 Years Advertising and promotion experience in consumer durable goods and publishing. Versatile, intelligent, creative. College graduate, 30, single. Salary about $10,000. Manhattan only. Arthur X. Tuohy, 31 Sterling, Yonkers, N. Y. BEverly 7-7500.

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DON'T FORGET
the box number when answering advertisements. It is the only way we can identify the advertiser to whom you are writing.

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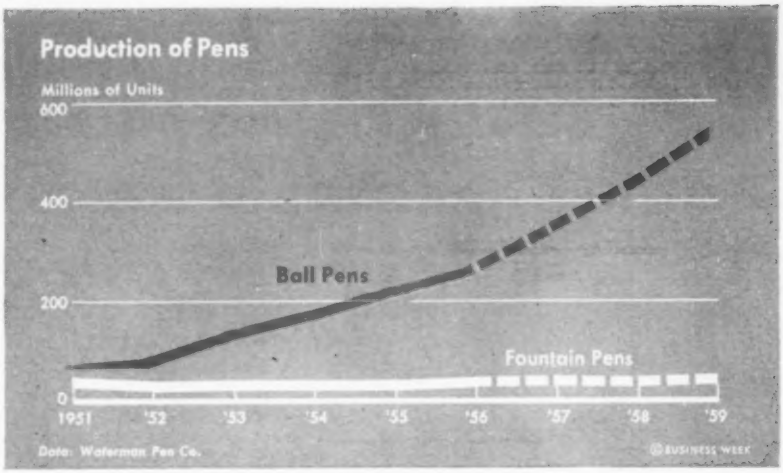
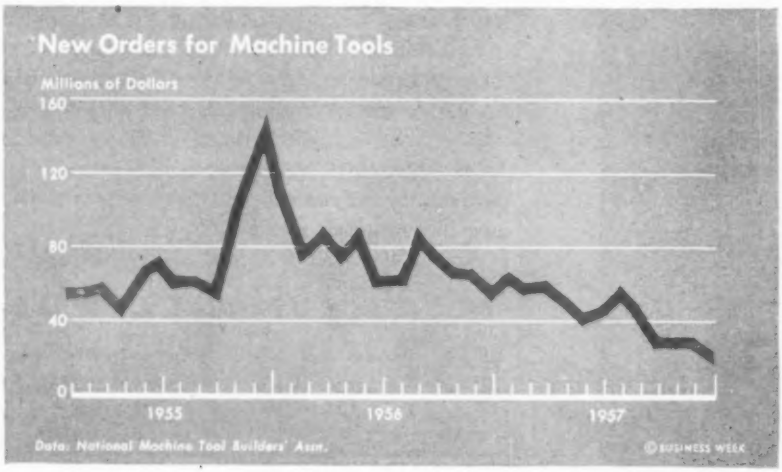


Ball Points Write the Ticket

Production of American ink-writing instruments will reach 580-million by 1959, a 53% jump over 1957, according to Waterman Pen Co. forecasts. The U.S., which accounts for over 90% of the total world production, turned out 380-million pens in 1957—four times the 1951 total. Growth of the ball point market was the big factor in most of the rise in unit volume. Output of ball pens increased more than six times from 1951 to 1957, and is expected to increase tenfold over the 1951-59 period.

In terms of wholesale prices, the value of the 1959 pen crop would be about $150-million. By then, ball points will account for almost 11 times more volume than fountain pens, but, because of their lower prices, will add up to only about twice the dollar volume—$104-million compared with $45-million for fountain pens.



Deep Dip in December

New orders for machine tools in December reached their lowest level since October, 1949—skidding 67% below December, 1956, and 87.7% under December, 1955.

The severe drop is blamed partly on the long holidays and the yearend auditing. However, January orders show little if any improvement so far.

For the year as a whole, orders were down nearly 45% from 1956. The order backlog, which was equivalent to about six months' output a year ago, now is down to three months.

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Who Will Run the U.S. Space Program?

Congress is going to have to make decisions on a whole series of questions—ranging from missiles to the recession—that no one was thinking of a year ago.

But of all these we suspect none will be more important than control of U. S. space programs. It is only a little more than four months since the first Russian satellite soared into orbit. But that is enough to make it very clear that military uses are only a small part of the benefits that man may realize from space vehicles. It is more than possible, for example, that we are coming up to a revolution in our knowledge of, and control of, weather.

Last week the Senate created almost overnight a special, blue-ribbon committee, which will probably be headed by Lyndon Johnson, to consider what agency should control space programs. One of the committee's first problems will be to decide whether the space agency should be in or out of the military establishment.

The pros and cons of this discussion may occupy weeks. Who will do the administering is a real problem. The President already has three men—Dr. James R. Killian, Jr., in the White House and William M. Holaday and Roy W. Johnson in the Pentagon—each of whom has large and largely undefined responsibilities for space programs. There are sure to be budget questions—should space programs have to bid against carriers for a share of the military budget?

But it already seems to us that space programs have too much potential to be confined to the military. As Talleyrand said about war, space is too important to be left to the generals.

Obviously, there will have to be a lot of thinking about the details, but the broad line of approach seems clear. The Atomic Energy Commission—an independent agency with close ties both to the military and to civilian industry—has proved highly successful. Something modeled along its lines seems the most sensible machinery for our new problems in space.

Falling Off the Featherbed

Labor and management in the building industry last week reached an agreement that could become a real landmark. In effect, the AFL-CIO Building & Construction Trades Dept. promised the National Constructors Assn. that it will no longer buck technological improvements and that the unions will help the constructors in efforts to get greater production at lower labor costs by stamping out abuses of work rules and featherbedding.

It will take more than just an agreement in principle to get any real economies in the building industry. The big problem will be to get compliance from local unionists who have grown accustomed to slackness and make-work practices. The test of the building trades unions' sincerity will be how hard they try to make the locals stick by the national agreement.

Nevertheless, the agreement is important all by itself. It represents formal recognition by the unions of the fact that featherbedding and make-work are against the long-run interests of the workers themselves. This is only simple economics, but it is the kind of economics that an industry ignores at its peril.

In the construction industry—and in many others—a trend away from a good day's work for a good day's pay surged upward in the early days of World War II. Employers with cost-plus contracts with the government allowed costly and inefficient work practices to develop in their competition to get and keep craftsmen. Once they were built into the system, these abuses became permanent.

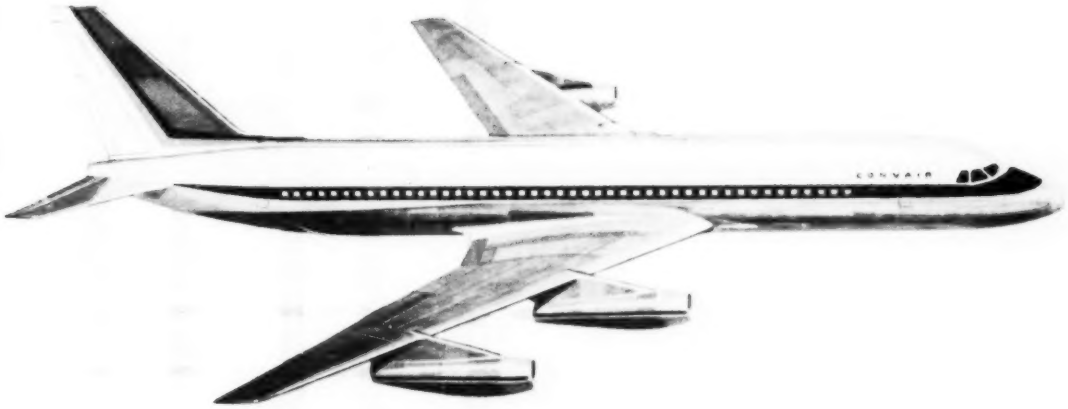
High Costs Retard Building

No one protested seriously in the years of peak prosperity just after the war. But by the early 1950s it was obvious that the rise of labor costs was retarding the whole construction industry. By the middle of the decade, the threat to job security had become so clear that union leaders as well as constructors recognized that the abuses would have to end.

Study groups from the AFL-CIO and the National Constructors Assn., a group of 24 companies that does about 90% of all heavy industrial building, began a survey of on-site practices. Their study included such things as featherbedding that bars the full use of labor-saving methods, materials and machinery, absenteeism, early quits, unauthorized wash-up and tool-put-away time, coffee break abuses, and other prevalent practices. The result was the formal agreement between the unions and the constructors.

If the locals go along with the spirit of the agreement, labor costs can be cut 10% to 15%, first on construction for industry, later on for other types of building including home construction.

Selling the locals on the idea will be no easy job, but it will be a vitally important one. For as the unions themselves have recognized in the national agreement, the long-term health of the building industry—and the jobs of the building workers—will depend in large measure on what happens to the trend of costs.



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